



---

# **THE REMACK<sup>®</sup> DIFFERENCE**

---

**PRODUCT TECHNICAL  
APPLICATION GUIDE**

# TABLE OF CONTENTS

|   |    |
|---|----|
| BASIC ENGINES.....                                      | 1  |
| E7 PLN .....  | 1  |
| E7 E-TECH™.....   | 3  |
| E7 ASET™.....   | 4  |
| MP7.....  | 6  |
| MP8.....  | 9  |
| MP10.....   | 11 |
| BASIC ENGINE INSTALLATION KITS.....                     | 13 |
| REMAC® 7/8 ENGINES .....                                | 14 |
| SHORT BLOCKS.....                                       | 17 |
| FLYWHEELS.....  | 19 |
| CONNECTING RODS.....                                    | 20 |
| MUZZLE LOADERS™.....                                    | 21 |
| MUZZLE LOADERS™ OVERHAUL KITS.....                      | 23 |
| CYLINDER HEADS .....                                    | 26 |
| IDLER GEARS.....  | 29 |
| INJECTION PUMPS.....                                    | 30 |
| NOZZLE ASSEMBLIES.....                                  | 33 |
| INJECTORS .....   | 37 |
| REMAC® SIX-PACK INJECTOR KITS .....                     | 38 |
| OIL PUMPS.....  | 40 |
| WATER PUMPS .....                                       | 41 |
| OIL COOLER ASSEMBLIES .....                             | 44 |
| REVERSING RELAYS .....                                  | 45 |
| ROCKER ARM ASSEMBLIES.....                              | 46 |
| TACH DRIVE ASSEMBLIES.....                              | 47 |
| FUEL SUPPLY PUMPS.....                                  | 48 |
| V-MAC® ENGINE CONTROL MODULES.....                      | 49 |
| ENGINE CONTROL UNIT .....                               | 50 |
| EGR VALVES .....  | 51 |
| TURBO ACTUATORS.....                                    | 52 |
| TURBO COMPOUND UNIT .....                               | 53 |
| TURBO KITS .....  | 54 |
| TRANSMISSIONS.....                                      | 58 |
| SYNCHRONIZED T200 TRANSMISSIONS .....                   | 58 |
| SYNCHRONIZED T300 TRANSMISSIONS .....                   | 59 |
| T300 SYNCHRONIZER REPLACEMENT KIT.....                  | 60 |
| <i>mDRIVE</i> ™ - D-SERIES.....                         | 61 |
| <i>mDRIVE</i> ™ - F-SERIES.....                         | 63 |
| TRANSMISSION RANGE SECTION .....                        | 65 |
| CLUTCH CONTROL ACTUATOR.....                            | 66 |
| CONTROL UNITS, CYLINDER HOUSINGS, TOP COVERS.....       | 67 |
| TRANSMISSION FRONT TOP COVER ASSEMBLIES.....            | 68 |
| REAR COMPOUND SHIFT COVERS .....                        | 69 |
| CARRIERS .....  | 70 |
| CARRIERS: REMAN VS. REBUILDER SERIES™.....              | 71 |
| REMAC® POWER DIVIDER LOCK OUT KITS.....                 | 72 |
| CARRIER RATIO CONVERSION<br>FOR NEW MODEL CHASSIS ..... | 73 |
| DEF PUMP .....  | 75 |

# BASIC ENGINES – E7 PLN

| PART NUMBER            | E7 PLN BASIC ENGINE APPLICATION   |
|------------------------|---|
| 86SB3511<br>86SB3511P2 | E7 PLN Non V-MAC prior to 1991 models (originally built with 240GC <b>585</b> , 57GC <b>2133</b> One-Piece Piston or serviced with 240GC590A/5 <b>123M</b> , 57GC <b>2189A</b> , 57GC <b>3118</b> Two-Piece Piston) (732GB <b>3452MX</b> Heads) |
| 86SB3512<br>86SB3512P2 | E7 PLN V-MAC prior to 1991 models (originally built with 240GC <b>585</b> , 57GC <b>2133</b> One-Piece Piston or serviced with 240GC590A/5 <b>123M</b> , 57GC <b>2189A</b> , 57GC <b>3118</b> Two-Piece Piston) (732GB <b>3452MX</b> Heads)     |
| 86SB3514<br>86SB3514P2 | E7 PLN models (with 240GC590A/ <b>591</b> , 57GC <b>2143</b> , 215SB <b>232</b> Two-Piece Piston) (732GB <b>3451MX</b> Heads) (Supersedes 86SB3513/3513P2)  |
| 86SB3515               | E7 PLN (with 240GC590A/ <b>591</b> , 57GC <b>2143</b> , 215SB <b>232</b> Pistons) Jacobs® Brake* or Non-Brake applications (732GB <b>3466MX</b> )   |
| 86SB3516               | E7 PLN (with 240GC590A/ <b>596</b> , 57GC <b>2151A</b> , 215SB <b>230</b> Pistons) Jacobs® Brake* or Non-Brake applications (732GB <b>3466MX</b> Heads) (454GC <b>5142</b> Camshaft)  |
| 86SB3516P3             | E7 PLN (with 240GC590A/ <b>596</b> , 57GC <b>2151A</b> , 215SB <b>230</b> Pistons) Jacobs® Stealth™ Ready (732GB <b>3469MX</b> Heads) (454GC <b>5142</b> Camshaft)  |
| 86SB3517               | E7 PLN (with 240GC590A/ <b>597</b> , 57GC <b>2152</b> Pistons) Jacobs® Brake* or Non-Brake applications (732GB <b>3466MX</b> Heads) (454GC <b>5142</b> Camshaft)  |

\* Requires 466GC468MX Rocker Arm Assemblies, 891GC46AM Valve Yokes and Jacobs® Engine Braking Components.

**Note:** “P2” designates Dynatard® Brake (Dynatard® Camshaft). Plain numbers (without “P2”) are Jake brake ready or non-brake.

**Note:** “P3” designates Jacobs® Stealth™ ready (see features).

**WARRANTY:** E7 PLN Basic Engine warranty is two years / unlimited miles.

**WARNING:** Use of a basic engine other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

## BASIC ENGINES – E7 PLN

| PART NUMBER | E7 PLN BASIC ENGINE APPLICATION   |
|-------------|---|
| 86SB3518    | E7 PLN (with 240GC590A/ <b>598</b> , 57GC <b>2153A</b> , 215SB <b>231</b> Pistons) Jacobs® Brake* or Non-Brake applications (732GB <b>3466MX</b> Heads) (454GC <b>5142</b> Camshaft)    |
| 86SB3519    | E7 PLN (with 240GC590BM/ <b>596AM</b> , 57GC <b>2151A</b> , 215SB <b>230</b> Pistons) Jacobs® Brake* or Non-Brake applications (732GB <b>3466MX</b> Heads) (454GC <b>5205</b> Camshaft) |
| 86SB3519P3  | E7 PLN (with 240GC590BM/ <b>596AM</b> , 57GC <b>2151A</b> , 215SB <b>230</b> Pistons) Jacobs® Stealth™ Ready (732GB <b>3469MX</b> Heads) (454GC <b>5205</b> Camshaft)                   |
| 86SB3520    | E7 PLN (with 240GC590BM/ <b>598AM</b> , 57GC <b>2153A</b> , 215SB <b>231</b> Pistons) Jacobs® Brake* or Non-Brake applications (732GB <b>3466MX</b> Heads) (454GC <b>5205</b> Camshaft) |
| 86SB3521    | E7 PLN (with 240GC590BM/ <b>597</b> , 57GC <b>2152</b> Pistons) Jacobs® Brake* or Non-Brake applications (732GB <b>3466MX</b> Heads) (454GC <b>5205</b> Camshaft)                       |

\* Requires 466GC4102MX Rocker Arm Assemblies, 891GC223M Valve Yokes and J-TECH™ Engine Braking Components.

**Note:** “P2” designates Dynatard® Brake (Dynatard® Camshaft). Plain numbers (without “P2”) are Jake brake ready or non-brake.

**Note:** “P3” designates Jacobs® Stealth™ ready (see features).

**WARRANTY:** E7 PLN Basic Engine warranty is two years / unlimited miles.

**WARNING:** Use of a basic engine other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

# BASIC ENGINES – E7 E-TECH™

| PART NUMBER            | E7 E-TECH™ BASIC ENGINE APPLICATION  |
|------------------------|--|
| 86SB3525<br>86SB3525P4 | E7 E-TECH™ (with Tube Type Oil Cooler 312GB3100AM and Camshaft Arrangement 454GC4256P3).   |
| 86SB3526<br>86SB3526P4 | E7 E-TECH™ (with Tube Type Oil Cooler 312GB3100AM and Camshaft Arrangement 454GC4256P2).   |
| 86SB3527<br>86SB3527P4 | E7 E-TECH™ (with Tube Type Oil Cooler 312GB3100AM and Camshaft Arrangement 454GC4254, or 454GC4256).   |
| 86SB3528<br>86SB3528P4 | E7 E-TECH™ (with Plate Type Oil Cooler 312GB569M/575M and Camshaft Arrangement 454GC4256P3).   |
| 86SB3529<br>86SB3529P4 | E7 E-TECH™ (with Plate Type Oil Cooler 312GB569M/575M and Camshaft Arrangement 454GC4256P2).   |
| 86SB3530<br>86SB3530P4 | E7 E-TECH™ (with Plate Type Oil Cooler 312GB569M/575M and Camshaft Arrangement 454GC4256).   |
| 86SB3531<br>86SB3531P4 | E7 E-TECH™ CCRS. applications with Camshaft Arrangement 454GC4263.   |
| 86SB3539               | E7 E-TECH™ CCRS. <b>Power Leash™</b> Engine Brake equipped with Camshaft Arrangement 454GC4260A. Use 86SB3546 for <b>Non-Brake</b> applications. |
| 86SB3546               | E7 E-TECH™ CCRS. <b>Non-Brake</b> applications with Camshaft Arrangement 454GC4260A  |

**Note:** “P4” designates E-TECH™ “J-TECH™” Engine Brake Ready (see features). Basic Engine features are listed on page 10.

**WARRANTY:** E7 E-TECH™ Basic Engine warranty is two years / unlimited miles.

**WARNING:** Use of a basic engine other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

## BASIC ENGINES – E7 ASET™ IEGR

| PART NUMBER | E7 ASET™ IEGR (AI) BASIC ENGINE APPLICATION  |
|-------------|--|
| 86SB3532    | E7 ASET™ IEGR (AI) (with 240GC590BM/5126M, 240GC590BM/5127M, 240GC2261M, 240GC2262M, 57GC2215, 57GC2216 Pistons) J-TECH™ Brake* or Non-Brake applications with 454GC4264** or 454GC4265 Camshaft Arrangement.                            |
| 86SB3533    | E7 ASET™ IEGR (AI) (with 240GC590BM/5128M, 240GC2263M, 57GC2217 Pistons) J-TECH™ Brake* or Non-Brake applications with 454GC4264** or 454GC4265 Camshaft Arrangement.  |
| 86SB3534    | E7 ASET™ IEGR (AI) (with 240GC590BM/5126M, 240GC590BM/5127M, 240GC2261M, 240GC2262M, 57GC2215, 57GC2216 Pistons) <b>Power Leash™</b> Engine Brake equipped with 454GC4264 Camshaft Arrangement. Use 86SB3544 for non-brake applications. |
| 86SB3535    | E7 ASET™ IEGR (AI) (with 240GC590BM/5128M, 240GC2263M, 57GC2217 Pistons) <b>Power Leash™</b> Engine Brake equipped with 454GC4264 Camshaft Arrangement. Use 86SB3545 for non-brake applications.   |
| 86SB3544    | E7 ASET™ IEGR (AI) (with 240GC590BM/5126M, 240GC590BM/5127M, 240GC2261M, 240GC2262M, 57GC2215, 57GC2216 Pistons) Non-Brake applications with 454GC4264** Camshaft Arrangement.   |
| 86SB3545    | E7 ASET™ IEGR (AI) (with 240GC590BM/5128M, 240GC2263M, 57GC2217 Pistons) Non-Brake applications with 454GC4264** Camshaft Arrangement.   |

\* Requires 466GC4102MX Rocker Arm Assemblies, 891GC223M Valve Yokes and J-TECH™ Engine Braking Components.

\*\* **Note:** From mid-July 2002 (Engine Serial Number 2N), camshaft 454GC4264 was changed and can no longer be used in J-TECH™ Brake applications. All ASET (AI) engine applications with J-TECH™ must use camshaft 454GC4265. See Service Bulletin #SB213035.

**Note:** “P4” designates E-TECH™ “J-TECH™” Engine Brake Ready (see features). Basic Engine features are listed on page 10.

**WARRANTY:** E7 ASET™ Basic Engine warranty is two years / unlimited miles.

**WARNING:** Use of a basic engine other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

# BASIC ENGINES – ASET™ CEGR

| <b>PART NUMBER</b> | <b>E7 ASET™ CEGR (AC) BASIC ENGINE APPLICATION</b>   |
|--------------------|--|
| 86SB3536           | E7 ASET™ CEGR ( AC) (with 240GC590BM/5125M, 240GC2259M, 57GC2204 Pistons) J-TECH™ Brake* or Non-Brake applications with 454GC4263 Camshaft Arrangement.  |
| 86SB3537           | E7 ASET™ CEGR (AC) (with 240GC590BM/5125M, 240GC2259M, 57GC2204 Pistons) J-TECH™ Brake* or Non-Brake applications with 454GC4267 Camshaft Arrangement.   |
| 86SB3538           | E7 ASET™ CEGR (AC) (with 240GC590BM/5125M, 240GC2259M, 57GC2204 Pistons) <b>Power Leash™</b> Engine Brake equipped with 454GC4268 Camshaft Arrangement. Use 86SB3543 for non-brake applications. |
| 86SB3540           | E7 ASET™ CEGR (AC) (with 240GC590BM/5125M, 240GC2259M, 57GC2204 Pistons) <b>Power Leash™</b> Engine Brake equipped with 454GC4271 Camshaft Arrangement. Use 86SB3542 for non-brake applications. |
| 86SB3541           | E7 ASET™ CEGR (AC) (with 240GC590BM/5125M, 240GC2259M, 57GC2204 Pistons) J-TECH™ Brake* or Non-Brake applications with 454GC4272 Camshaft Arrangement.   |
| 86SB3542           | E7 ASET™ CEGR (AC) (with 240GC590BM/5125M, 240GC2259M, 57GC2204 Pistons) Non-Brake applications with 454GC4271 Camshaft Arrangement.   |
| 86SB3543           | E7 ASET™ CEGR (AC) (with 240GC590BM/5125M, 240GC2259M, 57GC2204 Pistons) Non-Brake applications with 454GC4268 Camshaft Arrangement.   |

\* Requires 466GC4102MX Rocker Arm Assemblies, 891GC223M Valve Yokes and J-TECH™ Engine Braking Components.

## Other E-TECH™ and ASET™ Engine features:

- New style valve yokes with updated flanged jam nut design.
- Variable length push rod tubes with latest roller lifters.
- Camshaft surface finish meets current OEM specifications.
- Rocker arm assemblies utilizing the direct oil feed adjusting screw.
- EUP roller tappets (included) with the updated roller profile.

**WARNING: Use of a basic engine other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.**

# BASIC ENGINES – MP7



| <b>PART NUMBER</b> | <b>MP 7 BASIC ENGINE APPLICATION</b>  |
|--------------------|---|
| 85001334           | <b>MP7 EPA 04 with Engine Brake and Allison</b> Trans. utilizing <b>flywheel housing P/N 20939677 or 20939568</b> (Flywheel housing total width of 179mm / 7.05") applications. (Non-DPF System Model). Services 21121899   |
| 85001335           | <b>MP7 EPA 04 with Engine Brake</b> , utilizing <b>flywheel housing P/N 20939679</b> (Flywheel housing total width of 204mm / 8.03") applications. (Non-DPF System Model). Services 21121899  |
| 85001629           | <b>MP7 EPA 07 with Engine Brake</b> utilizing <b>flywheel housing P/N 20939679, 20955338 or 21386328</b> (Flywheel housing total width of 204mm / 8.03") applications. Services 20475004, 20475006  |
| 85001669           | <b>MP7 EPA 07 with Engine Brake</b> utilizing <b>flywheel housing P/N 20955334 or 21513982</b> (Flywheel housing total width of 179mm / 7.05") applications. Services 20475004, 20475006  |
| 85001630           | <b>MP7 EPA 07 with No Engine Brake</b> utilizing <b>flywheel housing P/N 20939679, 20955338 or 21386328</b> (Flywheel housing total width of 204mm / 8.03") applications. Services 20475005, 20475007   |
| 85001670           | <b>MP7 EPA 07 with No Engine Brake</b> utilizing <b>flywheel housing P/N 20955334 or 21513982</b> (Flywheel housing total width of 179mm / 7.05") applications. Services 20475005   |
| 85003639*          | <b>MP7 EPA 10 / OBD 13 with Engine Brake</b> utilizing <b>flywheel housing P/N 20955334 or 21513982</b> (Flywheel housing total width of 179mm / 7.05") applications. Services 21976425, 21980849, 22222930, 22222962, 85013864, 85013870   |
| 85013869*          | <b>MP7 EPA 10 / OBD 13 with No Engine Brake</b> utilizing <b>flywheel housing P/N 20955334 or 21513982</b> (Flywheel housing total width of 179mm / 7.05") applications. Services 21400864, 21400866, 21728548, 21728550, 21976437, 21980850, 22233094, 22233116, 85003641, 85013863  |
| 85013868*          | <b>MP7 EPA 10 / OBD 13 with Engine Brake</b> utilizing <b>flywheel housing P/N 20939679, 20939675, 20955338 or 21386328</b> (Flywheel housing total width of 204mm / 8.03") applications. Services 21400863, 21400865, 21728549, 21828547, 21975547, 21975549, 21996863, 21996868, 22222926, 22222929, 22222931, 22222935, 85013862, 85013866, 85013872 |

**WARNING:** Use of a basic engine other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

**WARRANTY:** MP7 Basic Engine warranty is two years / unlimited miles or three years / 350,000 miles as part of the Mack Overhaul Program.



# BASIC ENGINES – MP7



| <b>PART NUMBER</b> | <b>MP 7 BASIC ENGINE APPLICATION</b>   |
|--------------------|--|
| 85013871*          | <b>MP7 EPA 10 / OBD 13 with No Engine Brake</b> utilizing <b>flywheel housing P/N 20939679, 20939675, 20955338 or 21386328</b> (Flywheel housing total width of 204mm / 8.03") applications. Services 21400864, 21400866, 21728548, 21728550, 21975548, 21975550, 21996867, 21996869, 22222927, 22222933, 22222937, 85003645, 85013861, 85013865, 85013867 |
| 85020386           | <b>MP7 EPA14/OBD15/OBD16 with Engine Brake,</b> utilizing <b>flywheel housing P/N 20955388, 20939679 or 21386343.</b> (Flywheel housing total width of 204mm / 8.03".) Services 22288160, 22288165, 22288167, 22288171, 22573422, 22573440, 22573450, 22573487, 85013997, 85020392, 85020396, 85020400.-   |
| 85020390           | <b>MP7 EPA14/OBD15/OBD16 with Engine Brake,</b> utilizing <b>flywheel housing P/N 20955334, 21515910.</b> (Flywheel housing total width of 179mm / 7.05".) Services 22288162, 22288169, 22340046, 22340062, 22573423, 22573429, 22573444, 22573471, 85013993, 85020073, 85020075, 85020387, 85020393, 85020398.  |
| 85020394           | <b>MP7 EPA14/OBD15/OBD16 without Engine Brake,</b> utilizing <b>flywheel housing P/N, 20939679, 20955338 or 21386343.</b> (Flywheel housing total width of 204mm / 8.03".) Services 22288161, 22288166, 22573424, 22573445, 22288172, 22288168, 22573488, 22573467, 85013996, 85020388, 85020397, 85020401.  |
| 85020395           | <b>MP7 EPA14/OBD15/OBD16 without Engine Brake,</b> utilizing <b>flywheel housing P/N 20955334 or 21515910.</b> (Flywheel housing total width of 179mm / 7.05".) Services 22288163, 22288170, 22340051, 22340068, 22573428, 22573433, 22573446, 22573486, 85020389, 85020391, 85020399.   |

Part number with an asterisk (\*) denotes a bridge engine which can service more than one EPA variant. To order a bridge engine contact Parts Services at 887-447-2787. Please be ready to provide the VIN of the truck so the correct EPA engine label can be printed and installed on the engine for shipment.

# BASIC ENGINES – MP7



| <b>PART NUMBER</b> | <b>MP 7 BASIC ENGINE APPLICATION</b>   |
|--------------------|--|
| 85021474*          | <b>MP7 EPA 17 / OBD 18 / OBD19 with Engine Brake</b> utilizing <b>flywheel housing 22417822 or 23030732</b> (Flywheel Housing total width of 204 mm (8.03 in)) applications. Services 22997162, 22998016, 22998026, 22998030 23353004, 23353011, 23353090, 23353097.     |
| 85021479*          | <b>MP7 EPA 17 / OBD 18 / OBD19 with Engine Brake</b> utilizing <b>flywheel housing 22417820 or 23030729</b> (total width of 179 mm (7.05 in)) applications. Services 22997169, 22998009, 22998017, 2998028, 23353006, 23353010, 23353012, 23353095.                      |
| 85021476*          | <b>MP7 EPA 17 / OBD 18 / OBD19 with No Engine Brake</b> utilizing <b>flywheel housing 22417822 or 23030732</b> (Flywheel housing total width of 204 mm (8.03 in)) applications. Services 22997170, 22998018, 22998027, 22998031, 23353007, 23353014, 23353094, 23353100. |
| 85021481*          | <b>MP7 EPA 17 / OBD 18 / OBD19 with No Engine Brake</b> utilizing <b>flywheel housing 22417820 or 23030729</b> (Flywheel housing total width of 179 mm (7.05 in)) applications. Services 22998007, 22998022, 22998029, 23353009, 23353015, 23353096.                     |
| 85022816           | <b>MP7 EPA17 OBD20/21 with Engine Brake</b> utilizing <b>flywheel housing P/N 23030732</b> . (Flywheel Housing total width of 204mm / 8.03”) and oil pan 23474225. Services 23757258, 23757263, 23757271, 23758108, 85022826, 85022842, 85028108.                        |
| 85022820           | <b>MP7 EPA17 OBD20/21 without Engine Brake</b> utilizing <b>flywheel housing P/N. 23030732</b> . (Flywheel Housing total width of 204mm / 8.03”) and oil pan 23474225. Services 23757260, 23757265, 23757272, 23758109, 85022830, 85022844, 85022852.                    |
| 85022824           | <b>MP7 EPA17 OBD20/21 with Engine Brake</b> utilizing <b>flywheel housing P/N 23030729</b> . (Flywheel Housing total width of 179mm / 7.05”) and oil pan 23474225. Services 23757259, 23757262, 23757264, 23757267, 23758106, 85022818, 85022828, 85022834, 85022846.    |
| 85022838           | <b>MP7 EPA17 OBD20/21 without Engine Brake</b> utilizing <b>flywheel housing P/N 23030729</b> . (Flywheel Housing total width of 179mm / 7.05”) and oil pan 23474225. Services 23757261, 23757266, 23757269, 23758107, 85022822, 85022832, 85022848.                     |
| 85022854           | <b>MP7 EPA17 OBD20/21 with Engine Brake</b> utilizing <b>flywheel housing P/N 21868403</b> . (Cast Iron Flywheel Housing total width of 179mm / 7.05”) and oil pan 23474225. Services 23758110.  |

**WARNING: Use of a basic engine other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.**

# BASIC ENGINES – MP8



| PART NUMBER | MP 8 BASIC ENGINE APPLICATION  |
|-------------|--|
| 85001623    | <b>MP8 EPA07 with Engine Brake.</b> Services 20982249, 20982253, 85001627  |
| 85001624    | <b>MP8 EPA07 with No Engine Brake.</b> Services 20982250, 20982254, 85001628   |
| 85001625    | <b>MP8 EPA07 with Engine Brake.</b> Services 20982251  |
| 85001626    | <b>MP8 EPA07 with No Engine Brake.</b> Services 20982252   |
| 85003627*   | <b>MP8 EPA 10 / OBD 13 with Engine Brake, utilizing flywheel housing P/N 21184813 or 21547049.</b> (Flywheel housing total width of 179mm / 7.05".) Services 21408574, 21729917, 21976388, 22222970, 85013860  |
| 85003629*   | <b>MP8 EPA 10 / OBD 13 with No Engine Brake, utilizing flywheel housing P/N 21184813 or 21547049</b> (Flywheel housing total width of 179mm / 7.05") applications. Services 21408576, 21729918, 21976389, 22233117, 85013860   |
| 85003631*   | <b>MP8 EPA 10 / OBD 13 with Engine Brake, utilizing flywheel housing P/N 21184809 or 21547051</b> (Flywheel housing total width of 184mm / 7.24") applications. Services 21408577, 21408585, 21729919, 21729135, 21975553, 21976390, 22222945, 85003635, 85013856, 85013858              |
| 85003633*   | <b>MP8 EPA 10 / OBD 13 with No Engine Brake, utilizing flywheel housing P/N 21184809 or 21547051</b> (Flywheel housing total width of 184mm / 7.24") applications. Services 21408578, 21408589, 21729138, 21729920, 21975554, 21976391, 22233119, 22233121, 85003637, 85013855, 85013857 |
| 85020409    | <b>MP8 EPA14/OBD15/OBD16 with Engine Brake, utilizing flywheel housing P/N 21184813 or 21547049</b> (Flywheel housing total width of 179mm / 7.05") applications. Services 22289230, 22573575, 85020004.   |
| 85020410    | <b>MP8 EPA14/OBD15/OBD16 without Engine Brake, utilizing flywheel housing P/N 21184813 or 21547049</b> (Flywheel housing total width of 179mm / 7.05") applications. Services 22289231, 22573579.  |
| 85020411    | <b>MP8 EPA14/OBD15/OBD16 with Engine Brake, utilizing flywheel housing P/N 21184809 or 21547051</b> (Flywheel housing total width of 184mm / 7.24") applications. Services 22289243, 22573586, 85020006.   |

Part number with an asterisk (\*) denotes a bridge engine which can service more than one EPA variant. To order a bridge engine contact Parts Services at 887-447-2787. Please be ready to provide the VIN of the truck so the correct EPA e printed and installed on the engine for shipment.

# BASIC ENGINES – MP8



| <b>PART NUMBER</b> | <b>MP 8 BASIC ENGINE APPLICATION</b>  |
|--------------------|---|
| 85020412           | <b>MP8 EPA14/OBD15/OBD16 without Engine Brake, Conventional Chassis</b> , utilizing <b>flywheel housing P/N 21184809 or 21547051</b> (Flywheel housing total width of 184mm / 7.24”) applications. Services 22289244, 22573588. |
| 85020413           | <b>MP8 EPA14/OBD15/OBD16 with Engine Brake, Cab-over Chassis</b> , utilizing <b>flywheel housing P/N 21184809 or 21547051</b> (Flywheel housing total width of 184mm / 7.24”) applications. Services 22289245, 22573591.        |
| 85020414           | <b>MP8 EPA14/OBD15/OBD16 without Engine Brake, Cab-over Chassis</b> , utilizing <b>flywheel housing P/N 21184809 or 21547051</b> (Flywheel housing total width of 184mm / 7.24”) applications. Services 22289247, 22573592.     |
| 85021409*          | <b>MP8 EPA 17 / OBD 18 / OBD19 with Engine Brake</b> , utilizing <b>flywheel housing P/N 21347407, 22986940 or 22911776</b> (Flywheel housing total width of 179 mm (7.05 in)) applications. Services 22953321, 23345963.       |
| 85021410*          | <b>MP8 EPA 17 / OBD 18 / OBD19 with No Engine Brake</b> , utilizing <b>flywheel housing P/N 21347407, 22986940 or 22911776</b> (Flywheel housing total width of 179 mm (7.05 in)) applications. Services 22953322, 23345964.    |
| 85021411*          | <b>MP8 EPA 17 / OBD 18 / OBD19 with Engine Brake</b> , utilizing <b>flywheel housing P/N 21347406 or 22986942</b> (total width of 184 mm (7.24 in)) applications. Service 22953323, 22953327, 23345965, 23345906.               |
| 85021412*          | <b>MP8 EPA 17 / OBD 18 / OBD19 with No Engine Brake</b> , utilizing <b>flywheel housing P/N 21347406 or 22986942</b> (total width of 184 mm (7.24 in)) applications. Services 22953326, 22953328, 23345966, 23345907.           |
| 85021588*          | <b>MP8 EPA 17 / OBD 18 / OBD19 Turbo Compound</b> utilizing <b>flywheel housing 21347407, 22986940 or 22911776</b> (total width of 179 mm (7.05 in)) applications. Services 23089826, 23345133.                                 |
| 85023177           | <b>MP8 Turbo Compound EPA17 OBD20 With Engine Brake</b> , Utilizing <b>flywheel housing P/N 22911776</b> . (Flywheel Housing total width of 179mm / 7.05”) and oil pan 21368390. Services 23808943.                             |
| 85022856           | <b>MP8 EPA21 OBD20/21 with Engine Brake</b> , utilizing <b>flywheel housing P/N 22986940</b> . (Flywheel Housing total width of 179mm / 7.05”) and oil pan 23474239. Services 23760017.   |

**WARRANTY:** MP8 Basic Engine warranty is two years / unlimited miles or three years / 350,000 miles as part of the Mack Overhaul Program.

**WARNING:** Use of a basic engine other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

## BASIC ENGINES – MP8 AND MP10



| PART NUMBER | MP 8<br>BASIC ENGINE APPLICATION   |
|-------------|--|
| 85022858    | <b>MP8 EPA21 OBD20/21 Without Engine Brake</b> , utilizing <b>flywheel housing P/N 22986940</b> . (Flywheel Housing total width of 179mm / 7.05”) and oil pan 23474239. Services 23760018.                   |
| 85022860    | <b>MP8 EPA21 OBD20/21 with Engine Brake</b> , utilizing <b>flywheel housing P/N 22986942</b> . (Flywheel Housing total width of 184mm / 7.24”) and oil pan 23474239. Services 23760019, 23760021, 85022864.  |
| 85022862    | <b>MP8 EPA21 OBD20/21 Without Engine Brake</b> utilizing <b>flywheel housing P/N 22986942</b> . (Flywheel Housing total width of 184mm / 7.24”) and oil pan 23474239. Services 23760020, 23760022, 85022866. |
| PART NUMBER | MP 10<br>BASIC ENGINE APPLICATION  |
| 85001633    | <b>MP10 EPA 07 with Engine Brake</b><br>Services 20475020, 85003143  |
| 85003625*   | <b>MP10 EPA 10 / OBD 13 with Engine Brake.</b><br>Services 21400856, 21730558, 21976462, 22233125, 85013854  |
| 85020416    | <b>MP10 EPA 14 OBD 14/15 with Engine Brake</b><br>Services 22291930, 22575196  |

**ALL BASIC ENGINE FEATURES:** Remanufactured cylinder block, cylinder head(s), crankshaft, connecting rods and oil pump. One hundred percent new components include piston rings, liners, rod bolts, bearings, bushings, gaskets and seals. All remanufactured basic engines include push rods, rocker assemblies and cylinder head cover(s), and receive rigorous in-process inspections throughout the remanufacturing process to ensure performance and reliability standards are met.

**Note:** E7, E-TECH™ and ASET™ Oil pans are positioned in the rear sump position and may require changing due to position and/or bosses required for some applications. MP7 and MP8 oil pans are positioned in the front sump position and may require changing due to position and/or bosses required for some applications. MP10 oil pans are positioned in the rear sump position and may require changing due to position and/or bosses required for some applications.

“PLN” refers to those engines built with inline fuel injection equipment. “E-TECH™” refers to the engines built using the six individual electronic unit pumps. “CCRS” refers to current-controlled rate shaping. This technology utilizes electrical current to control the rate of fuel injection. “ASET” refers to application specific engine technology. There are two types of ASET engines: internal exhaust gas recirculation or “IEGR” and cooled exhaust gas recirculation or “CEGR”. You may also hear these referred to as AI (IEGR) and AC (CEGR) engines.

**WARRANTY:** MP10 Basic Engine warranty is two years / unlimited miles or three years / 350,000 miles as part of the Mack Overhaul Program.

---

## BASIC ENGINES

The P3 variation includes 732GB3469MX cylinder heads with different exhaust springs and rotors. These engines are ready for installation of Jacob's® Stealth™ braking Ccomponents.

The P4 variation includes the 466GC499MX rocker assemblies. These engines are ready for installation of the "J-TECH™" engine braking components.

**MP7 Applications:** MP7 = 11 liters. The engines are designed with electronic unit injectors, cooled exhaust gas recirculation (EGR) and variable geometry turbocharger (VGT). The design conforms to Environmental Protection Agency (EPA) requirements. REMACK® MP7 Basic Engines come with remanufactured oil cooler and remanufactured unit injectors.

**MP8 Applications:** MP8 = 13 liters. The engines are designed with electronic unit injectors, cooled exhaust gas recirculation (EGR) and variable geometry turbocharger (VGT). The design conforms to Environmental Protection Agency (EPA) requirements. REMACK® MP8 Basic Engines come with remanufactured oil cooler and remanufactured unit injectors.

**MP10 Applications:** MP10 = 16 liters. The engines are designed with electronic unit injectors, cooled exhaust gas recirculation (EGR), and variable geometry turbocharger (VGT). The design conforms to Environmental Protection Agency (EPA) requirements. REMACK® MP10 Basic Engines come with remanufactured oil cooler and remanufactured unit injectors.

## BASIC ENGINE INSTALLATION KITS



| PART NUMBER | BASIC ENGINE INSTALLATION KIT APPLICATION |
|-------------|---|
| 85148981    | MP7 EPA04                                 |
| 85148972    | MP7 EPA07                                 |
| 85148975    | MP7 EPA10                                 |
| 85148978    | MP7 EPA14                                 |
| 23055012    | MP7 EPA17                                 |
| 85148973    | MP8 EPA07                                 |
| 85148976    | MP8 EPA10                                 |
| 85148979    | MP8 EPA14                                 |
| 23055013    | MP8 EPA17                                 |
| 23055728    | MP8 EPA 17 Turbo Compound                 |
| 85148974    | MP10 EPA07                                |
| 85148977    | MP10 EPA10                                |
| 85148980    | MP10 EPA14                                |

**BENEFITS:** The Basic Installation Kit has all the gaskets, o-rings and copper washers needed to install the Basic engine. The Basic Installation Kit will ease the installation and save time for the parts counter technician, as well as the mechanic installing the engine.

**WARNING:** Use of a basic engine installation kit other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

---

## REMACK 7/8 ENGINES

The REMACK 7/8 Engine Program is designed to provide both the dealer and the end user the best product and value. Every 7/8 engine shipped is a 100% fully factory dyno tested unit to ensure it meets all the original OEM specifications.

All 7/8th engines are ready to install, dyno tested and proven. The only components remaining to be installed on the engine are the power steering pump, starter, alternator and the fan drive.

### Benefits:

- Service your customer with a genuine reman labor saving product at competitive pricing
- Completely disassembled and cleaned using the latest technology
- Engines subject to multiple in-process inspections, measured to OE/reman specs
- Dyno tested on a factory dynamometer to ensure all OEM specs are met

**Note:** MP7 and MP8 oil pans are positioned in the front sump position and may require changing due to position and/or bosses required for some applications. MP10 oil pans are positioned in the rear sump position and may require changing due to position and/or bosses required for some applications.

### WARRANTY:

Two years / unlimited miles  
Optional Three years / 350,000\*

\* Conditions apply. See the details located in the Mack Overhaul Extended Warranty Registration Form located on the TDP.

## 7/8 BUILT TO ORDER PROGRAM

REMACK currently offers 121 unique 7/8 Engine SKU's that cover all MP7 and MP8 engines from EPA 07 through current. Every 7/8 Engine that REMACK build can be ordered through our VDSP program.

Be sure to use the TPI's below to ensure the correct 7/8 part number is ordered as all 7/8 Built to Order sales are final with no returns allowed. For a guided walkthrough please refer to the How to Video on how to order a 7/8 Engines, located on the Aftermarket Sales kit.

MP7 – TPI 210-097

MP8 – TPI 210-099

### ORDERING INSTRUCTIONS:

REMACK 7/8 Fleet Program

60-day lead time for engines SKU's not in Quick Ship program

Freight – Prepaid

Ships From: Charlotte, NC

VDSP Program Number: SMR351411

Part Number Prefix: 3514

See Parts Compass for order and program details

**WARNING: Use of an engine other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.**



## 7/8 QUICK SHIP PROGRAM

The REMACK 7/8 Quick Ship program is designed to service Mack cabover configured vehicles using MP7 EPA 07 through EPA 14 engines.

7/8 Quick Ship engines are built and stocked at our Charlotte Reman facility and ship within 24 hours from the receipt of the order.

| PART NUMBER   | QUICK SHIP APPLICATIONS   |
|---------------|---|
| 3514-20475006 | MP7 EPA07 <b>Cab-over Chassis</b> with <b>Engine Brake</b> utilizing <b>flywheel housings P/N 20939675, 20939679, 20955338, or 21386328.</b> (Flywheel Housing total width of 204mm / 8.03") Applications. See TPI 215-012 Services 20475006    |
| 3514-20475007 | MP7 EPA07 <b>Cab-over Chassis</b> with <b>No Engine Brake</b> utilizing <b>flywheel housings P/N 20939675, 20939679, 20955338, or 21386328.</b> (Flywheel Housing total width of 204mm / 8.03") Applications. See TPI 215-012 Services 20475007 |
| 3514-21728549 | MP7 EPA10 <b>Cab-over Chassis</b> with <b>Engine Brake</b> utilizing <b>flywheel housings P/N 20939679, 20955338, or 21386328.</b> (Flywheel Housing total width of 204mm / 8.03") Applications. Services 2140065, 21728549                     |
| 3514-21728550 | MP7 EPA10 <b>Cab-over Chassis</b> with <b>No Engine Brake</b> utilizing <b>flywheel housings P/N 20939679, 20955338, or 21386328.</b> (Flywheel Housing total width of 204mm / 8.03") Applications. Services 21400866, 21728550                 |
| 3514-22222931 | MP7 EPA10 OBD13 <b>Cab-over Chassis</b> with <b>Engine Brake</b> utilizing <b>flywheel housings P/N 20939679, 20955338, or 21386343.</b> (Flywheel Housing total width of 204mm / 8.03") Applications. Services 21975549, 22222931              |
| 3514-22222937 | MP7 EPA10 OBD13 <b>Cab-over Chassis</b> with <b>No Engine Brake</b> utilizing <b>flywheel housings P/N 20939679, 20955338, or 21386343.</b> (Flywheel Housing total width of 204mm / 8.03") Applications. Services 21975550, 22222937           |
| 3514-22573450 | MP7 EPA14 OBD 15/16 <b>Cab-over Chassis</b> with <b>Engine Brake</b> utilizing <b>flywheel housings P/N 20939679, 20955338, or 21386343.</b> (Flywheel Housing total width of 204mm / 8.03") Applications. Services 22288167, 22573450          |
| 3514-22573467 | MP7 EPA14 OBD 15/16 <b>Cab-over Chassis</b> with <b>No Engine Brake</b> utilizing <b>flywheel housings P/N 20939679, 20955338, or 21386343.</b> (Flywheel Housing total width of 204mm / 8.03") Applications. Services 22288168, 22573467       |

---

## **7/8 QUICK SHIP SLT PROGRAM**

*Coming Soon:* We're currently revamping the 7/8 engine Quick Ship program.

**WARNING:** Use of an engine other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

## SHORT BLOCKS – E7, E-TECH™

Offering E7 PLN, E-TECH™ and ASET™ Short Blocks. Features include remanufactured cylinder block, crankshaft and connecting rods. One hundred percent new components include piston rings, liners, rod bolts, bearings, bushings, and front and rear seals.



| <b>PART NUMBER</b> | <b>E7 PLN SHORT BLOCK APPLICATION</b>   |
|--------------------|---|
| 239GB1896X         | E7 PLN V-MAC or Non V-MAC (with 240GC <b>585</b> , 57GC <b>2133</b> One-Piece Piston or serviced with 240GC590BM/ <b>5123M</b> , 57GC <b>2189A</b> , 57GC <b>3118</b> Two-Piece Piston) ref. 86SB3511/3512 Basic Engines. |
| 239GB1900X         | E7 PLN (with 240GC590A/ <b>591</b> , 57GC <b>2143</b> , 215SB <b>232</b> Two-Piece Piston) ref. 86SB3514/3515 Basic Engines.  |
| 239GB1905X         | E7 PLN (with 240GC590A/ <b>596</b> , 57GC <b>2151A</b> , 215SB <b>230</b> Two Piece Piston) (454GC <b>5142</b> Camshaft) ref. 86SB3516/3516P3 Basic Engines.  |
| 239GB1906X         | E7 PLN (with 240GC590A/ <b>597</b> , 57GC <b>2152</b> Two-Piece Piston) (454GC <b>5142</b> Camshaft) ref. 86SB3517 Basic Engines.   |
| 239GB1907X         | E7 PLN (with 240GC590A/ <b>598</b> or <b>5122M</b> , 57GC <b>2153A</b> , 215SB <b>231</b> Two-Piece Piston) (454GC <b>5142</b> Camshaft) ref. 86SB3518 Basic Engines.   |
| 239GB1909X         | E7 PLN (with 240GC590A/ <b>596AM</b> , 57GC <b>2151A</b> , 215SB <b>230</b> Two-Piece Piston) (454GC <b>5205</b> Camshaft) ref. 86SB3519/3519P3 Basic Engines.  |
| 239GB1910X         | E7 PLN (with 240GC590BM/ <b>597</b> , 57GC <b>2152</b> Two-Piece Piston) (454GC <b>5205</b> Camshaft) ref. 86SB3521 Basic Engines.  |
| 239GB1911X         | E7 PLN (with 240GC590BM/ <b>598AM</b> or <b>5122M</b> , 57GC <b>2153A</b> , 215SB <b>231</b> Two-Piece Piston) (454GC <b>5205</b> Camshaft) ref. 86SB3520 Basic Engines.  |
| <b>PART NUMBER</b> | <b>E-TECH™ SHORT BLOCK APPLICATION</b>  |
| 239GB1914X         | E-TECH™ Engines with cam arrangement 454GC <b>4256P3</b>  |
| 239GB1915X         | E-TECH™ Engines with cam arrangement 454GC <b>4256</b>  |
| 239GB1916X         | E-TECH™ Engines with cam arrangement 454GC <b>4256P2</b>  |
| 239GB1919X         | E-TECH™ CCRS Engines with cam arrangement 454GC <b>4263</b>   |
| 239GB1928X         | E-TECH™ CCRS Engines with cam arrangement 454GC <b>4260A</b>  |

**WARNING: Use of a short block other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.**

## SHORT BLOCKS – ASET™

| <b>PART NUMBER</b> | <b>ASET™ IEGR SHORT BLOCK APPLICATION</b>  |
|--------------------|--|
| 239GB1920X         | E7 ASET™ IEGR (AI) (with 240GC590BM/5126M, 240GC590BM/5127M, 240GC2261M, 240GC2262M, 57GC2215, 57GC2216 Pistons) J-TECH™ Brake or Non-Break Apps with 454GC4264** or 454GC4265 Camshaft Arrangement. |
| 239GB1921X         | E7 ASET™ IEGR (AI) (with 240GC590BM/5128M, 240GC2263M, 57GC2217 Pistons) with 454GC4264** or 454GC4265 Camshaft Arrangement.   |
| 239GB1922X         | E7 ASET™ IEGR (AI) (with 240GC590BM/5126M, 240GC590BM/5127M, 240GC2261M, 240GC2262M, 57GC2215, 57GC2216 Pistons) Power Leash™ Engine Apps. with 454GC4264** Camshaft Arrangement.                    |
| 239GB1923X         | E7 ASET™ IEGR (AI) (with 240GC590BM/5128M, 240GC2263M, 57GC2217 Pistons) with 454GC4264** Camshaft Arrangement.  |
| <b>PART NUMBER</b> | <b>ASET™ CEGR SHORT BLOCK APPLICATION</b>  |
| 239GB1924X         | E7 ASET™ CEGR (AC) (with 240GC590BM/5125M, 240GC2259M, 57GC2204 Pistons) with 454GC4263 Camshaft Arrangement.  |
| 239GB1925X         | E7 ASET™ CEGR (AC) (with 240GC590BM/5125M, 240GC2259M, 57GC2204 Pistons) with 454GC4267 Camshaft Arrangement.  |
| 239GB1927X         | E7 ASET™ CEGR (AC) (with 240GC590BM/5125M, 240GC2259M, 57GC2204 Pistons) with 454GC4268 Camshaft Arrangement.  |
| 239GB1929X         | E7 ASET™ CEGR (AC) (with 240GC590BM/5125M, 240GC2259M, 57GC2204 Pistons) with 454GC4271 Camshaft Arrangement.  |
| 239GB1930X         | E7 ASET™ CEGR (AC) (with 240GC590BM/5125M, 240GC2259M, 57GC2204 Pistons) with 454GC4272 Camshaft Arrangement.  |

**FEATURES:** Remanufactured cylinder block, crankshaft, connecting rods, camshaft, pistons, EUP tappets (when applicable), lifters, piston cooling nozzles, auxiliary shaft, timing gears and timing gear cover. One hundred percent new components include piston rings, liners, rod bolts, bearings, bushings, and front and rear seals. All remanufactured short blocks undergo rigorous in-process inspections throughout the remanufacturing process to ensure performance and reliability standards are met.

**\*\* NOTE:** From mid-July 2002 (Engine Serial Number 2N), camshaft 454GC4264 was changed and can no longer be used in J-TECH™ Brake applications. All ASET (AI) engine applications with J-TECH™ must use camshaft 454GC4265. See Service Bulletin #SB213035.

**WARRANTY:** Two years / unlimited miles.

**WARNING:** Use of a short block other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

# FLYWHEELS



| PART NUMBER | APPLICATION  |
|-------------|--|
| 85021772    | <b>MP7 Engine. EPA04 through EPA17 Emissions.</b> Services 21825230  |
| 85021774    | <b>MP8 Engine. EPA07 through EPA14 Emissions.</b> Services 21184666  |
| 85021776    | <b>MP8 Engine. EPA17 Emissions.</b> Services 21630898                |
| 85021776    | <b>MP10 Engine. EPA07 through EPA14 Emissions.</b> Services 21630898 |

**FEATURES:** Remanufactured flywheels are available as an alternative to new flywheels and provide a lower *mDRIVE*™ service cost. All remanufactured flywheels are completely cleaned and inspected for any damage. The flywheels are remanufactured according to the latest engineering specifications. The pilot bearing is included and installed for your convenience.

**NOTE:** MP10 remanufactured flywheel is for single mass flywheel replacement only. A twin mass flywheel is NOT an acceptable core. A single mass flywheel conversion kit (P/N 23040540) should be utilized when replacing a twin mass flywheel.

**WARRANTY:** One year / unlimited miles.

**WARNING:** Use of a flywheel other than what is listed above may result in transmission failure or unsatisfactory performance, and will void transmission warranty.

## CONNECTING RODS

Precision machining ensures rods are straight and they have proper surface finish. Crank bores are brought back to original size. New rod bolts and wrist pin bushings are installed, and bushings are machined to size.



| PART NUMBER   | CONNECTING ROD APPLICATION   |
|---------------|--|
| 367GC3170P2X  | T673C, T675 (engines built prior to 1975).   |
| 367GC3219P2X* | Use 367GC4240P2X (set of six)  |
| 367GC4240P2X  | All 2V six-cylinder, piston-cooled engines produced after 4/7/83.  |
| 367GC4247P2X  | All six-cylinder, piston-cooled engines with <b>62GB2393 Deltawall</b> connecting rod bearings.                              |
| 367GC4202CX   | All E9 (V-8) engines except marine and VG2 applications. For marine and VG2 applications, use new rod <b>P/N 367GC4264</b> . |
| 367GC4243M2X  | All E7 PLN, E-TECH™ and ASET™ engines. Services 367GC4255M(2), 367GC4267M(2) and 20706148.                                   |

**FEATURES:** Rods are completely disassembled, cleaned and inspected. Precision machining centers remove any bend or twist, and ensure proper surface finish. Crank bores are brought back to original size and specification. All new wrist pin bushings are installed and machined to size. Completed connecting rods, including new rod bolts, are checked for proper lengths prior to shipment. Rods are packaged in sets of six or eight. Broken set orders are available and will be shipped direct from Middletown on request.

**\*NOTE:** 367GC3217P2X rods have been eliminated. P/N 367GC3219P2X. For core returns, 367GC3217P2X and 367GC3219P2X cores are interchangeable. Also 367GC4240P2X rods can be used in place of 367GC3219P2X rods, when replaced in complete sets of six.

**WARRANTY:** One year / unlimited miles.

**WARNING:** Use of connecting rods other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

# MUZZLE LOADERS™

All REMACK® Remanufactured Muzzle Loaders™ come ready to install into cylinder bores. Assembled units come complete with reman connecting rods, piston crowns, snap rings and wrist pins. New components included are piston rings, piston skirt, rod bolts and cylinder liner.



| PART NUMBER | APPLICATION  |
|-------------|--|
| 215SB238LX  | E7 PLN 1991/92/93/94 models with 240GC <b>2246AM</b> (240GC591 crown) original pistons. New kit reference #57GC2143A, 215SB232A or 215SB217D.  |
| 215SB239LX  | E7 PLN 1994/95 models with 240GC <b>2248AM</b> (240GC596 crown) original pistons. New kit reference #57GC2151A, 215SB230A or 215SB218E.  |
| 215SB240LX  | E7 PLN 1995/96 models with 240GC <b>2249AM</b> (240GC597 crown) original pistons. New kit reference #57GC2152 or 215SB236C.  |
| 215SB242LX  | E7 PLN 1994/95/96 and E-TECH™ 1998/99/00/01 models with 240GC <b>2250CM</b> (240GC <b>598AM</b> or 240GC <b>5122M</b> crown) original pistons. New kit reference #57GC2153A, 215SB231A or 215SB219E. Supersedes 215SB241LX Muzzle Loader™. |
| 215SB243LX  | E7 E-TECH™ 2002 CCRS models with 240GC <b>2258M</b> (240GC <b>5124M</b> crown) original pistons. New kit reference #57GC2196, 57GC3119 or 57GC3127.  |
| 215SB244LX  | E7 ASET™ AC (CEGR) models with 240GC <b>2259M</b> (240GC <b>5125M</b> crown) original pistons. New kit reference # 57GC2204, 57GC3121 or 57GC3124.   |
| 215SB245LX  | E7 ASET™ AI (IEGR) models with 240GC <b>2261M</b> (240GC <b>5126M</b> crown) original pistons. New kit reference # 57GC2215 or 57GC3125.   |
| 215SB246LX  | E7 ASET™ AI (IEGR) models with 240GC <b>2262M</b> (240GC <b>5127M</b> crown) original pistons. New kit reference # 57GC2216 or 57GC3126.   |
| 215SB247LX  | E7 ASET™ AI (IEGR) models with 240GC <b>2263M</b> (240GC <b>5128M</b> crown) original pistons. New kit reference # 57GC2217 or 57GC3128.   |

# MUZZLE LOADERS™



| PART NUMBER | APPLICATION <i>cont'd</i>  |
|-------------|--|
| 85146606    | <b>MP7 EPA04/07/10</b> Engines. Services 21367720.   |
| 85021909    | <b>MP7 EPA 14</b> Engines. Services 22416837.  |
| 85021628    | <b>MP7 EPA 17</b> Engines. Services 22637622.  |
| 85146624    | <b>MP8 EPA07 with std. weight</b> connecting rod (See <b>TPI 216-019</b> to ID rods) Engines. Services 20928630.   |
| 85021905    | <b>MP8 EPA07 with light weight</b> connecting rod (See <b>TPI 216-019</b> to ID rods) Engines. These kits have lightweight connecting rods and cannot be used with non-light weight Muzzle Loader kits. Services 20928630. |
| 85146629    | <b>MP8 EPA10 with std. weight</b> connecting rod (See <b>TPI 216-019</b> to ID rods) Engines. Services 21330684.   |
| 85021907    | <b>MP8 EPA10 with light weight</b> connecting rod (See <b>TPI 216-019</b> to ID rods) Engines. These kits have light weight connecting rods and cannot be used with non-lightweight Muzzle Loader kits. Services 21330684. |
| 85021911    | <b>MP8 EPA 14 with std. weight</b> connecting rod (See <b>TPI 216-019</b> to ID rods) Engines. Services 22522229   |
| 85021913    | <b>MP8 EPA 14 with light weight</b> connecting rod (See <b>TPI 216-019</b> to ID rods) Engines. Services 22522229  |
| 85021947    | <b>MP8 EPA 17 with std. weight</b> connecting rod (See <b>TPI 216-019</b> to ID rods) Engines. Services 22565407   |
| 85021399    | <b>MP8 EPA 17 with light weight</b> connecting rod (See <b>TPI 216-019</b> to ID rods) Engines. Services 22565407  |
| 85146633    | <b>MP10 EPA07</b> Engines. Services 22302062.  |
| 85146665    | <b>MP10 EPA10</b> Engines. Services 22302064.  |
| 85021921    | <b>MP10 EPA 14</b> Engines. Services 22302064, 85147016, 85146665  |

**FEATURES:** Remanufactured Muzzle Loaders™ come ready to install into cylinder bores. Assembled units come complete with reman connecting rods, piston crowns, snap rings and wrist pins. Crank bores are brought back to original size and specification. New wrist pin bushings are installed into the rod and machined to size. The pistons are cleaned and visually inspected. Acceptable pistons are dimensionally gauged to ensure proper size and specification. Connecting rods are inspected for bends or twists. Any that are found bent or twisted are discarded. Rods are also inspected for proper finish. If all criteria are met, new bushings are installed (if applicable). The Muzzle Loaders™ include new rod bolts, and are assembled by trained technicians and packaged for shipment.

**WARRANTY:** Two years / unlimited miles.

**WARNING:** Use of Muzzle Loaders™ other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.



# MUZZLE LOADER™ OVERHAUL KITS

All REMACK® Remanufactured Muzzle Loader™ Overhaul Kits come with six Muzzle Loaders™ ready for installation into cylinder bores. Also included in each kit are necessary gaskets, bearings and seals to completely rebuild your E7 Engine.



| PART NUMBER | MUZZLE LOADER™ OVERHAUL KITS APPLICATION   |
|-------------|--|
| 215SB275KX  | E7 PLN prior to 1991 models with 240GC <b>585</b> original one-piece aluminum piston or engines previously serviced with 240GC <b>2257AM</b> (240GC <b>5123M</b> crown) two-piece pistons. New kit reference #215SB198F. |
| 215SB276KX  | E7 PLN 1991/92/93/94 models with 240GC <b>2246AM</b> (240GC <b>591</b> crown) original pistons. (215SB238LX Muzzle Loader) New kit reference #215SB200F.   |
| 215SB277KX  | E7 PLN 1994/95 models with 240GC <b>2248AM</b> (240GC <b>596</b> crown) original pistons. (215SB239LX Muzzle Loader) New kit reference #215SB362.  |
| 215SB278KX  | E7 PLN 1995/96 models with 240GC <b>2249AM</b> (240GC <b>597</b> crown) original pistons. (215SB240LX Muzzle Loader) Not available new.  |
| 215SB279KX  | E7 PLN 1994/95/96 models with 240GC <b>2250CM</b> (240GC <b>598</b> or 240GC <b>5122M</b> crown) original pistons. (215SB242LX Muzzle Loader) New kit reference #215SB208B.  |
| 215SB280KX  | E7 E-TECH™ 1998/99/00/01 models with 240GC <b>2250CM</b> (240GC <b>5122M</b> crown) original pistons. (215SB242LX Muzzle Loader) New kit reference #215SB304.  |
| 215SB281KX  | E7 E-TECH™ 2002 CCRS models with 240GC <b>2258M</b> (240GC <b>5124M</b> crown) original pistons. (215SB243LX Muzzle Loader) New kit reference #85132403.   |
| 215SB282KX  | E7 ASET™ AC (CEGR) models with 240GC <b>2259M</b> (240GC <b>5125M</b> crown) original pistons. (215SB244LX Muzzle Loader) New Kit reference #85132404.   |

**FEATURES:** Included in each kit are the following:

- Six – Muzzle Loaders™
- One – Lower engine gasket set
- Two – Cylinder head gasket sets
- One – Upper engine gasket set
- Rod and main bearings sets

**WARRANTY:** Two years / unlimited miles on Muzzle Loaders™.  
One year / unlimited miles on bearings and gaskets.

**WARNING:** Use of Muzzle Loader™ overhaul kits other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

# MUZZLE LOADER™ OVERHAUL KITS

| PART NUMBER | MUZZLE LOADER™ OVERHAUL KITS APPLICATION <i>cont'd</i>   |
|-------------|--|
| 215SB283KX  | E7 ASET™ AI (IEGR) models with 240GC <b>2261M</b> (240GC <b>5126M</b> crown) original pistons. (215SB245LX Muzzle Loader) New Kit reference #85132405. |
| 215SB284KX  | E7 ASET™ AI (IEGR) models with 240GC <b>2262M</b> (240GC <b>5127M</b> crown) original pistons. (215SB246LX Muzzle Loader) New Kit reference #85132406. |
| 215SB285KX  | E7 ASET™ AI (IEGR) models with 240GC <b>2263M</b> (240GC <b>5128M</b> crown) original pistons. (215SB247LX Muzzle Loader) New Kit reference #85132407. |
| 85146676    | <b>MP7 EPA04/07/10</b> Engines. Services 85138499, 85138500.   |
| 85021915    | <b>MP7 EPA 14</b> Engines. Services 22416837, 22521926, 85021909   |
| 85021630    | <b>MP7 EPA 17</b> Engines. Services 22637622, 23035646, 85021628   |
| 85146681    | <b>MP8 EPA07</b> Engines. Services 85138501.   |
| 85146685    | <b>MP8 EPA10</b> Engines. Services 85138502.   |
| 85021917    | <b>MP8 EPA 14</b> Engines. Services 22522198, 22522229, 85021911, 85021913   |
| 85021400    | <b>MP8 EPA 17 Variable Geometry Turbo (VGT)</b> type Engines. Services 22565407, 22724208, 85021399, 85021947  |
| 85021919    | <b>MP8 EPA 17 Turbo Compound (TC)</b> type Engines. Services 22565407, 23060943, 85021399, 85021947  |
| 85146689    | <b>MP10 EPA07</b> Engines. Services 85138503.  |
| 85146694    | <b>MP10 EPA10</b> Engines. Services 85138504.  |
| 85021921    | <b>MP10 EPA 14</b> Engines. Services 22302064, 85147016, 85146665  |

**WARRANTY:** Two years / unlimited miles on Muzzle Loaders™. One year / unlimited miles on bearings and gaskets.

**WARNING:** Use of Muzzle Loader™ overhaul kits other than what is listed above may result in engine failure or unsatisfactory performance and will void engine warranty.

---

# MUZZLE LOADER™ OVERHAUL KITS

## REMACK® MUZZLE LOADER OVERHAUL KIT FEATURES:

All REMACK® Muzzle Loader™ Overhaul Kits come with six Muzzle Loaders™ ready for installation into cylinder bores. Also included in each kit are the following:

- One – Cylinder head gasket set (where applicable)
- One – Engine (Decarb) gasket Set
- One – Oil pan gasket
- One – Thermostat
- One – Camshaft bearing set
- Rod and main bearings sets
- Thrust washer kit

## MUZZLE LOADER OVERHAUL KIT INSTALL TOOLS:

Available now to aid when installing the REMACK® Muzzle Loader™ Kits. These can be ordered from the PDC.

P/N **88800556** install tool for **MP7/E7**

P/N **88870026** for **MP8**

P/N **88800557** for **MP10**



## BENEFITS:

- Shorten your overhaul turn-around time by using Muzzle Loader™ Overhaul Kits
- Labor savings up to 3–4 hours
- Tool has install arrow for proper alignment of piston when installing loaded kit
- Ease, quality and cleanliness of installation

## CYLINDER HEADS

Castings are MAGNAFLUX®-inspected and pressure-tested. Computer-controlled machining ensures OEM/reman specs. All valves are new or re-chromed, and valve seats are inspected, machined and tested to ensure a proper seal. New valve guides and rotors are installed.



| <b>PART NUMBER</b> | <b>CYLINDER HEAD APPLICATION</b>  |
|--------------------|---|
| 732GB3424X         | All E6 four-valve cylinder head engines.<br>NOTE: 732GB3424X services both 7/16" and 3/8" diameter valve stem cylinder heads.   |
| 732GB3452MX        | E7 PLN Engines (pre 1991). Services 732GB4464M  |
| 732GB3451MX        | E7 PLN Engines (1991, 92, 93) with 240GC590/591 (57GC2143) two-piece piston. 688GC2378 exhaust valve, 575GC213 exhaust valve spring and 722GC235 lower exhaust valve spring rotator. Services 732GB4463M  |
| 732GB3466MX        | E7 PLN Engines (1994/95/96/97) - Not for Dynatard® applications. For engines built with Pyromet exhaust valve identified with a "Y" on the center of the head of the valve. (Refer to Service Bulletin #32E001 or SB266005) (Supersedes 732GB3460MX). 688GC2389 exhaust valve, 575GC213 exhaust valve spring and 722GC235 lower exhaust valve spring rotator. |
| 732GB3469MX        | E7 PLN Engines (1995/96/97) for Jacobs® Stealth™ Retarding System applications. (Supersedes 732GB3467MX). 688GC2389 exhaust valve, 575GC35 exhaust valve spring and 722GC313 lower exhaust valve spring rotator.  |
| 732GB3485MX        | E7 E-TECH™ Engines built prior to 3/1/00, serial #OD0119 and lower (with 891GC215M or 891GC223M pin type intake yoke).  |

**WARNING: Use of a cylinder head other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.**

# CYLINDER HEADS



| <b>PART NUMBER</b> | <b>CYLINDER HEAD APPLICATION <i>cont'd</i></b>   |
|--------------------|--|
| 732GB3491MX        | E7 E-TECH™ Engines built from 3/1/00 and pre CCRS, serial #OD0120 and higher (with 891GC328 pinless intake yoke).  |
| 732GB3492MX        | E7 E-TECH™ CCRS Engines, except PowerLeash™ application. Services 732GB3492(A)M, 732GB3495M, 732GB3502M, 732GB3503M, 732GB3511M and 732GB3512M. Note: For CCRS PowerLeash™ applications use new service cyl. head 732GB3498AM. |
| 732GB3499MX        | E7 ASET™ AI (IEGR) Engines. All J-TECH™ Brake and PowerLeash™ applications (With three 183GC2257 yoke pins). Services 732GB3494M, 732GB3499M, 732GB3501M and 732GB3509M  |
| 732GB3510MX        | E7 ASET™ AI (IEGR) Engines. Non-Brake applications. (no yoke pins) Services 732GB3510M   |
| 732GB3509M2X       | E7 ASET™ AC (CEGR) Engines. All J-TECH™ Brake and PowerLeash™ applications. (With three 183GC2257 yoke pins). Services 732GB3494M2, 732GB3499M2, 732GB3501M2 and 732GB3509M2   |
| 732GB3510M2X       | E7 ASET™ AC (CEGR) Engines. Non-Brake applications (no yoke pins). Services 732GB3510M2  |

**FEATURES:** All remanufactured cylinder heads are completely disassembled and cleaned. The castings are Magnaflux®-inspected and pressure-tested. State-of-the-art computer controlled machining centers machine all surfaces to reman and/or O.E.M. specifications to ensure REMACK® quality. All valves and valve seats are inspected and machined. All remanufactured cylinder heads are complete with valves, valve guide seals (where applicable), heavy-duty valve springs, rotators and keepers. New valve guides and rotators are installed 100 percent. Completed assemblies are vacuum-tested to ensure proper seal.

**WARRANTY:** One year / unlimited miles.

**NOTE:** If a Jake brake is to be installed on an engine with remanufactured cylinder heads, it might be necessary to change the exhaust valve stem cap (refer to Service bulletin SB213012).

**WARNING:** Use of a cylinder head other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

# CYLINDER HEADS



| <b>PART NUMBER</b> | <b>CYLINDER HEAD APPLICATION <i>cont'd</i></b>   |
|--------------------|--|
| 85013082           | <b>MP7 EPA04 / EPA07</b> Engines. <b>Flat (copper) type injector cup</b> applications. Services 20905280, 20905281, 21356506, 21585615, 22083822, 85000902, 85013082, 85020268, 85003285 |
| 85013085           | <b>MP7 EPA07 / EPA10</b> Engines. <b>Conical (stainless steel) type injector cup</b> applications. Services 21463155, 21576299, 22083821, 85003704, 85013084                             |
| 85020035           | <b>MP7 EPA14</b> Engines. Services 22063681, 22083821, 22498186, 85020266  |
| 85021573           | <b>MP7 EPA17</b> Engines. Services 23042711  |
| 85020272           | <b>MP8 EPA07</b> Engines. <b>Flat (copper) type injector cup</b> applications. Services 21042138, 22251142, 22498383, 85000985   |
| 85020274           | <b>MP8 EPA07/ EPA10</b> Engines. <b>Conical (stainless steel) type injector cup</b> applications. Services 21460896, 85013086  |
| 85020890           | <b>MP8 EPA14</b> Engines. Services 22186468, 22251173, 22797841, 22498413, 85013949, 85020037, 85020294  |
| 85021398           | <b>MP8 EPA17</b> Engines. Services 22498489, 22728123  |
| 85022161           | <b>MP10 EPA07</b> Engines. <b>Flat (copper) type injector cup</b> applications. Services 21016557, 21072137, 21331714, 21461672, 22115009, 85003707, 85003108                            |
| 85013088           | <b>MP10 EPA07/ EPA10</b> Engines. <b>Conical (stainless steel) type injector cup</b> applications. Services 21440400, 21461673, 22115004, 85013087                                       |
| 85022771           | <b>MP10 EPA14</b> Engines. Services 22184000, 22215855   |

**WARNING:** Use of a cylinder head other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

# IDLER GEARS



## PART

## NUMBER

## CASE HARDENED - APPLICATION

85021558 **MP7 EPA 07 through EPA 14 all applications and EPA 17 with 1000 NM engine PTO torque capacity applications.** Services 20811955, 21060843, 21760929, 21826609, 23493803

85021559 **MP8 EPA 07 through EPA 14 all applications and EPA 17 with 1000 NM engine PTO torque capacity applications.** Services 20973826, 21056774, 21057068, 21760930, 21826610, 23493805

85021560 **MP10 EPA 07 through EPA 14 all applications.** Services 21056761, 21057433, 21760931, 21826611, 23493807

## PART

## NUMBER

## NC + APPLICATION

85022638 **MP7 EPA 17 all applications except 1000 NM engine PTO Torque capacity Services 23493801**

85022636 **MP8 EPA 17 all applications except 1000 NM engine PTO Torque Services 23493797**

Case Hardened Idler gears are designed to withstand use in applications up to 1000 NM PTO engine torque.

NC+ (Nitro Carburization) Idler gears are for use in EPA 17 engines with less than 1000 NM of PTO engine torque.

**NOTE:** Case Hardened and NC+ gears cannot be mixed. All gears must be of the same surface treatment.

**FEATURES:** All REMACK Idler Gears are fully disassembled and cleaned using the latest technology. The disassembled components receive rigorous in-process inspections where each is measured to OE/Reman specifications. All critical components and “high wear” items are replaced with new. Final assembly is completed and tested the same as new.

**WARRANTY:** One year / unlimited miles.

# INJECTION PUMPS

Components are fully cleaned and inspected. Any parts that can't meet precise specs and tolerances are replaced. All units are calibrated prior to shipping. New gaskets, seals and O-rings are included.



**FEATURES:** All REMACK® fuel injection pumps are completely disassembled, and all component parts are thoroughly cleaned and inspected. All critical parts are checked dimensionally—all others are visually inspected. Any parts that do not clean up in machining or cannot be machined because they are beyond tolerance are scrapped and replaced with new. REMACK® injection pumps are assembled with all new gaskets, seals and O-rings.

## REMANUFACTURED INJECTION PUMP KITS INCLUDE:

- All P7100, P7200, P7300 and V-MAC® injection pumps have steel delivery valve gaskets.
- Remanufactured fuel supply pumps.
- Remanufactured V-MAC® RE30 governors include an integrated wiring harness, and updated rack positioning and speed sensors.
- Kits are tested and calibrated to O.E.M. specifications.
- Remanufactured injectors are assembled with all-new nozzle tips (kit only).
- Copper compression washers for the injectors (kit only).
- Copper compression washers for the fuel return line (kit only).
- Dust seals for the injectors (kit only).
- Gasket for injection pump to block (RB except P7100, P7200, P7300 and V-MAC®).
- O-ring for injection pump to block (P7100, P7200, P7300 and V-MAC®).
- Drive coupling (except P7100, P7200, P7300 and V-MAC®).

**NOTE:** All injection pumps (unless marked to order injectors separately) with an odd “P” number (P5X) indicate kit (reman pump and injectors), while an even “P” number (P6X) indicates reman pump only.

**NOTE:** Injection pumps not listed may be available pending core and component availability. Contact D&W Diesel per the VDSP vendor ordering instructions listed on the Trucks Dealer Portal for availability.

**WARRANTY:** One year / unlimited miles.

**WARNING:** Use of an injection pump other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.



# INJECTION PUMPS

## ROBERT BOSCH P7100, P7200, P7300 INJECTION PUMPS (PUMP ONLY - INJECTORS MUST BE ORDERED SEPARATELY)

| INJECTION PUMP<br>PART# | NOZZLE<br>ASSEMBLY<br>PART#<br>736GB | APPLICA-<br>TION |    | SUPPLY<br>PUMP# |
|-------------------------|--------------------------------------|------------------|----|-----------------|
| 4119-313GC5185P26X      | 343P4X                               | 4V E7-250        | RB | 314GC227P5X     |
| 4119-313GC5188P6X       | 343P4X                               | 4V E7-250        | RB | 314GC227P5X     |
| 4119-313GC5179P26X      | 341X                                 | 4V EM7-250       | RB | 314GC227P5X     |
| 4119-313GC5188P2X       | 341X                                 | 4V EM7-250       | RB | 314GC227P5X     |
| 4119-313GC5212P2X       | 341X                                 | 4V EM7-250       | RB | 314GC227P5X     |
| 4119-313GC5185P22X      | 341X                                 | 4V EM7-275       | RB | 314GC227P5X     |
| 4119-313GC5188P4X       | 343P4X                               | 4V EM7-275       | RB | 314GC227P5X     |
| 4119-313GC5212P4X       | 343P9X                               | 4V EM7-275       | RB | 314GC227P5X     |
| 4119-313GC5228P4X       | 343P9X                               | 4V EM7-275       | RB | 314GC227P5X     |
| 4119-313GC5185P10X      | 341X                                 | 4V EM7-300       | RB | 314GC227P5X     |
| 4119-313GC5188P10X      | 343P3X                               | 4V EM7-300       | RB | 314GC227P5X     |
| 4119-313GC5212P10X      | 343P3X                               | 4V EM7-300       | RB | 314GC227P5X     |
| 4119-313GC5212P14X      | 343P9X                               | 4V EM7-300       | RB | 314GC227P5X     |
| 4119-313GC5228P14X      | 343P9X                               | 4V EM7-300       | RB | 314GC227P5X     |
| 4119-313GC5185P14X      | 341X                                 | 4V E7-300        | RB | 314GC227P5X     |
| 4119-313GC5185P18X      | 341X                                 | 4V E7-300        | RB | 314GC227P5X     |
| 4119-313GC5188P8X       | 343P2X                               | 4V E7-300        | RB | 314GC227P5X     |
| 4119-313GC5212P8X       | 343P11X                              | 4V E7-300        | RB | 314GC227P5X     |
| 4119-313GC5228P8X       | 343P11X                              | 4V E7-300        | RB | 314GC227P5X     |
| 4119-313GC5185P2X       | 341X                                 | 4V E7-350        | RB | 314GC227P5X     |
| 4119-313GC5188P12X      | 343P2X                               | 4V E7-350        | RB | 314GC227P5X     |
| 4119-313GC5212P12X      | 343P2X                               | 4V E7-350        | RB | 314GC227P5X     |
| 4119-313GC5212P16X      | 343P11X                              | 4V E7-350        | RB | 314GC227P5X     |
| 4119-313GC5228P16X      | 343P11X                              | 4V E7-350        | RB | 314GC227P5X     |
| 4119-313GC5185P6X       | 341X                                 | 4V E7-400        | RB | 314GC227P5X     |

## ROBERT BOSCH P7200 V-MAC® INJECTION PUMPS (PUMP ONLY - INJECTORS MUST BE ORDERED SEPARATELY)

| INJECTION PUMP<br>PART# | NOZZLE<br>ASSEMBLY<br>PART#<br>736GB | APPLICA-<br>TION |    | SUPPLY<br>PUMP# |
|-------------------------|--------------------------------------|------------------|----|-----------------|
| 4119-313GC5183P6X       | 341X                                 | E7 V-MAC<br>1990 | RB | 314GC227P5X     |

**WARNING: Use of an injection pump other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.**

# INJECTION PUMPS

## ROBERT BOSCH P8500 V-MAC® INJECTION PUMPS (PUMP ONLY – INJECTORS MUST BE ORDERED SEPARATELY)

| INJECTION PUMP PART#  | NOZZLE ASSEMBLY PART# 736GB | APPLICATION                                   | PUMP TYPE | SUPPLY PUMP#       |
|---|-----------------------------|---|-----------|--------------------|
| 4119-313GC5205X<br>Supersedes<br>935-0402996301<br>935-0402996303   | Variable                    | 1993 / 94 /<br>95 / 96<br>400 HP or<br>Less   | RB        | 935<br>0440008120X |
| 4119-313GC5205P3X<br>Supersedes<br>935-0402996302<br>935-0402996304 | Variable                    | 1993 / 94 /<br>95 / 96<br>427 HP or<br>454 HP | RB        | 935<br>0440008120X |
| 4119-313GC5217X   | Variable                    | 1994 400<br>HP or Less                        | RB        | 935<br>0440008120X |
| 4119-313GC5217P2X   | Variable                    | 1994 427 or<br>454 HP                         | RB        | 935<br>0440008120X |
| 4119-313GC5225PX  | Variable                    | 1994 400<br>HP or Less                        | RB        | 935<br>0440008120X |
| 4119-313GC5225P2X   | Variable                    | 1994 427 or<br>454 HP                         | RB        | 935<br>0440008120X |

### NOTE:

RB = Robert Bosch.

\* Services 935-0402996301 and 303

\*\* Services 935-0402996302 and 304

\*\*\* Bosch P7100, P7200, V-MAC®, and In-Line Eight-Cylinder Pumps are sold as a pump only – not a kit. Injectors must be ordered separately. All other Injection Pumps with an odd “P” number (P5X) indicates kit (reman pump and injectors). While an even “P” number (P6X) indicates reman pump only.

† When replacing 337P3 and 337P5 injectors in full sets, use part number 337P9X.

**WARNING: Use of an injection pump other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.**

# INJECTION PUMP NOZZLE & HOLDER ASSEMBLIES

Fully cleaned and inspected. Calibrated and tested to ensure proper operation. New nozzle tips, felt dust cover gaskets, copper compression gaskets and nozzle return line washers are provided.



**FEATURES:** All Mack remanufactured injectors are completely disassembled, cleaned and inspected then assembled with new nozzle tips and pressure set to Mack specification. Injectors come with new gaskets and O-rings, when applicable.

**WARRANTY:** E-TECH™ /ASET™ Injectors – two years / 200,000 miles. All others – one year / unlimited miles.

## ELECTRONIC UNIT PUMP (EUP)

| INJECTION PUMP PART# | NOZZLE ASSEMBLY PART# 736GB | APPLICATION     | PUMP TYPE | SUPPLY PUMP# |
|----------------------|-----------------------------|-----------------|-----------|--------------|
| 313GC5227MX          | N/A                         | E-TECH™         | RB        | 85013282     |
| 313GC5230MX          | N/A                         | E-TECH™<br>CCRS | RB        | 85013282     |
| 313GC5233MX          | N/A                         | ASET™           | RB        | N/A          |

**WARNING:** Use of an injection pump nozzle & holder assembly other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

# INJECTION PUMP NOZZLE & HOLDER ASSEMBLIES

## TWO-VALVE HEAD NOZZLES

| PART NUMBER   | APPLICATION                        |
|---------------|------------------------------------|
| 736GB127X     | END673(AMBAC)                      |
| 736GB227X     | END673(AMBAC)                      |
| 736GB221X     | END673(AMBAC)                      |
| 736GB162X     | ENDT673-675(AMBAC)                 |
| 736GB251X     | ENDT673-675(RB)                    |
| 736GB250AX    | ENDT676, EM6-300(R), E6-350(AMBAC) |
| 736GB250AP7X  | ENDT675(AMBAC)                     |
| 736GB250AP8X  | ETY-ETZ675, EMC6-285(R)(AMBAC)     |
| 736GB250AP9X  | ETX675, EC6-330(AMBAC)             |
| 736GB250AP11X | EM6-250(AMBAC)                     |
| 736GB254P2X   | ENDT676(RB)                        |
| 736GB254P4X   | ENDT676- ETAZ673A(RB)              |
| 736GB321X     | ENDT676- ETAZ673A(RB)              |
| 736GB328X     | ETY-ETZ675(RB)                     |
| 736GB254P3X   | ETY-ETZ675(RB)                     |

## BAR STOCK NOZZLES

| PART NUMBER | APPLICATION  |
|-------------|--|
| 736GB333P2X | EM6-237, E6-250, EM6-285, EM6-250(R), E6-315(R) EME6- 250(R), EME6-300(RB) |
| 736GB333P3X | EME6-300(R), EE6-350(R)(RB)  |
| 736GB333P4X | E6-200 (RB)  |
| 736GB333P5X | EM6-237(RB)  |
| 736GB333P7X | EM6-237(RB)  |
| 736GB333P8X | E6-350, EM6-300, EM6-275L(RB)  |
| 736GB335X   | EM6-285(R), E6-315(R), EM6-300(R), (AMBAC)                                 |
| 736GB335P2X | EM6-237(R), E6-260 (AMBAC)   |
| 736GB335P3X | EMC6-250, EMC6-285(R) (AMBAC)  |
| 736GB335P4X | EM6-250, EM6-225 (AMBAC)   |
| 736GB335P5X | EMC6-250L (AMBAC)  |

**WARNING:** Use of an injection pump nozzle & holder assembly other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

# INJECTION PUMP NOZZLE & HOLDER ASSEMBLIES

## E6 FOUR-VALVE HEAD NOZZLES

| PART NUMBER  | APPLICATION  |
|--------------|--|
| 736GB259P13X | EM6-250(L), EM6-275(L), EM6-300(L), E6-275, E6-350, EC6-350 (AMBAC)  |
| 736GB259P6X  | EC6-300, EC6-350 (AMBAC)   |
| 736GB337P3X  | E6-275, E6-300, EM6-300(L) (RB) (Order this part number for less than full set for original replacement – Use 736GB337P9X in sets of six)                                    |
| 736GB337P4X  | EM(E)6-300, EME6-300R, EE6-350(RB)   |
| 736GB337P5X  | E6-275, E6-300, E6-350, EM6-250L, EM6-275L, EM6-300L, EC6-350 (RB) (Order this part number for less than full set for original replacement – Use 736GB337P9X in sets of six) |
| 736GB337P6X  | E6-270(RB)   |
| 736GB337P9X  | E6-275, E6-300, E6-350, EM6-250L, EM6-275L, EM6-300(L), EC6-350(RB)<br>Replaces 736GB337P3X and 736GB337P5X in sets of six only  |

## V-8 NOZZLES

| PART NUMBER  | APPLICATION                                 |
|--------------|---|
| 736GB250AP2X | V-8 ENT865/866(AMBAC)                       |
| 736GB170AX   | V-8 ENDT865(AMAC)                           |
| 736GB259P3X  | V-8 EM9-400(R) EM9-440(AMBAC)               |
| 736GB259P5X  | E(M)(C)9-400(R) (AMBAC) (pre-1988)          |
| 736GB259P11X | E9-400, E9-450, E9-500 (AMBAC) (1988 on up) |
| 736GB337P7X  | EE9-502, E9-450, E9-500(RB)                 |

## E7 PLN NOZZLES

| PART NUMBER | APPLICATION   |
|-------------|---|
| 736GB341X   | EM7-250, EM7-300, E7-350, E7-400, E7-300 (1700 RPM) (RB)                  |
| 736GB343P2X | 1991 E7-350(V), E7-350(M), E7-300(M) (1950), E7-400(V) (RB)               |
| 736GB343P3X | 1991 E7-300(V), EM7-300(V), EM7-300(M), (Pre-1992)(RB)                    |
| 736GB343P4X | 1991 EM7-250(V), EM7-275(M), EM7-250(M), EM7-275(M), E7-250(M) (1950 RPM) |
| 736GB343P6X | E7-325(V), E7-350(V) (RB)   |
| 736GB343P7X | E7-400(V), E7-427(V), E7-454(V) (RB)                                      |
| 736GB343P8X | E7-250(V), EM7-275(V), EM7-300(V), E7-300(V) (RB)                         |

**WARNING:** Use of an injection pump nozzle & holder assembly other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

# INJECTION PUMP NOZZLE & HOLDER ASSEMBLIES

## E7 PLN NOZZLES cont'd

| PART NUMBER  | APPLICATION                             |
|--------------|---|
| 736GB343P9X  | EM7-250(M), EM7-275(M), EM7-300(M) (RB) |
| 736GB343P11X | E7-300(M), E7-350(M)(RB)                |
| 736GB343P12X | E7-454(RB)                              |
| 736GB343P13X | E7 GEN. SET                             |

## E-TECH™ NOZZLES

| PART NUMBER | APPLICATION  |
|-------------|--|
| 736GB415MX  | ETECH Up to 400 HP, 700cc. Replaces 736GB48M4, 49M4, 49BM4, 49M4X                  |
| 736GB415M2X | ETECH 427HP and higher, 850cc. Replaces 736GB47M3, M7, 48M3, 49M3, 49BM3 and 49M3X |
| 736GB420MX  | ETECH CCRS Below 460 HP, 700cc. Replaces 736GB410M                                 |
| 736GB420M3X | ETECH CCRS 460 HP, 850cc. Replaces 736GB410M3                                      |

## ASET™ NOZZLES

| PART NUMBER | APPLICATION   |
|-------------|---|
| 736GB411MX  | ASET CEGR (Phase I & II) below 380 HP, 650cc.                                       |
| 736GB411M2X | ASET CEGR (Phase I & II) 380 HP and higher, 750cc.                                  |
| 736GB412MX  | ASET IEGR (Phase I & II) 300 HP only, 650cc.  |
| 736GB412M2X | ASET IEGR (Phase I & II) 350 and 400 HP, 700cc.                                     |
| 736GB412M3X | ASET IEGR (Phase I & II) 427 and 460 HP, 750cc.                                     |
| 736GB414MX  | ASET IEGR (Phase III) AMI-300, AI-300, 650cc.                                       |
| 736GB414M2X | ASET IEGR (Phase III) AMI-335, AMI-370, AI-350, AI-400, 700cc.                      |
| 736GB414M3X | ASET IEGR (Phase III) AI-427, AI-460, 750cc.  |
| 736GB418M2X | ASET CEGR (Phase III) AC-380/410, AC-460E, AC-460P, 900cc.                          |
| 736GB419MX  | ASET IEGR (Phase IV) AMI-300, AI-300A, 650cc  |
| 736GB419M2X | ASET IEGR (Phase IV) AMI-335, AMI-370 w/ 5165/5174 data file, AI-350, AI-400, 700cc |
| 736GB419M3X | ASET IEGR (Phase IV) AMI-370 w/5146 data file, AI-427, AI-460, 750cc                |
| 736GB421MX  | ASET CEGR (Phase IV) AC-310/330, AC-330/350, AC-355/380, AC-350, 650cc              |
| 736GB421M2X | ASET CEGR (Phase IV) AC-380/410, AC-400, AC-427, 750cc                              |
| 736GB421M3X | ASET CEGR (Phase IV) AC-460E, AC-460P, 850cc  |

**WARNING: Use of an injection pump nozzle & holder assembly other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.**

# REMAK® SINGLE INJECTORS



## MP 7 INJECTORS

| PART NUMBER | APPLICATION  |
|-------------|--|
| 85003128    | <b>MP7 EPA04.</b> Services 20702362  |
| 85013146    | <b>MP7 EPA07.</b> Use with flat injector sleeves. Services 20833111, 20893021, 20965224, 21028628, 21106498, 21246331, 85003110 (MP7 EPA 07 flat injectors for use with copper injector cups are only available as singles. For six pack set, please upgrade to 85144091 conical injectors.) |
| 85013147    | <b>MP7 EPA07.</b> Use with conical injector sleeves. Services 21457950, 21554442, 85003711   |
| 85013718    | <b>MP7 EPA10/OBD13.</b> Enhanced with coated NCV (Needle Control Valve). Services 21172430, 21307001, 21457952, 21599150, 22027807, 85013159   |
| 85020427    | <b>MP7 EPA14/OBD15/OBD16.</b> Services 22015763, 22479123, 85020031  |

## MP8 INJECTORS

| PART NUMBER | APPLICATION  |
|-------------|--|
| 85013149    | <b>MP8 EPA07.</b> Use with flat injector sleeves. Services 20582430, 20977565, 21106375, 21244717, 85003109 (MP8 EPA 07 flat injectors for use with copper injector cups are only available as singles. For six pack set, please upgrade to 85003924 conical injectors.) |
| 85013152    | <b>MP8 EPA07.</b> Use with conical injector sleeves. Services 21451295, 21543203, 85003656, 85003887   |
| 85013612    | <b>MP8 EPA10/OBD13.</b> Enhanced with coated NCV (Needle Control Valve). Services 21092434, 21119665, 21458369, 21599153, 22027808, 5003658, 85013160, 85135901  |
| 85020429    | <b>MP8 EPA14/OBD15/OBD16.</b> Services 22012829, 22479124, 85020033  |

## MP10 INJECTORS

| PART NUMBER | APPLICATION  |
|-------------|--|
| 85013154    | <b>MP10 EPA07.</b> Use with flat injector sleeves. Services 20965225, 21028629, 21106499, 21246332, 85000837, 85000911, 85003111 (MP10 EPA 07 flat injectors for use with copper injector cups are only available as singles. For six pack set, please upgrade to 85144095 conical injectors.) |
| 85013157    | <b>MP10 EPA07.</b> Use with conical injector sleeves. Services 21457951, 21543204  |
| 85020857    | <b>MP10 EPA10/OBD13.</b> Enhanced with coated NCV (Needle Control Valve) Services 21172432, 21306972, 21457953, 21683459, 22027810, 85013161, 85013613, 85013720, 85020091   |
| 85020844    | <b>MP10 EPA14/OBD15/OBD16.</b> Services 22218106, 22479125, 22717952, 85020431   |

# REMACK® SIX-PACK INJECTOR KITS

The REMACK® Six-Pack Injector Kit includes the latest design and engineering upgrades. One hundred percent of components are inspected for optimum quality, tolerance and function.



| PART NUMBER | APPLICATION   |
|-------------|---|
| 85135079    | <b>ETECH up to 400 hp</b> , 700 cc. Services 736GB48M4, 49M4, 49BM4, 49M4X, 415MX                             |
| 85135080    | <b>ETECH 427 hp and higher</b> , 850 cc. Services 736GB47M3, M7, 48M3, 49M3, 49BM3, 49M3X, 415M2X             |
| 85135081    | <b>ETECH CCRS below 460 hp</b> , 700 cc. Services 736GB410M, 420MX  |
| 85135092    | <b>ETECH CCRS 460 hp</b> , 850 cc. Services 736GB410M3, 420M3X  |
| 85135091    | <b>ASET CEGR (Phase I &amp; II)</b> below 380 hp, 650 cc. Services 411MX                                      |
| 85135087    | <b>ASET CEGR (Phase I &amp; II)</b> 380 hp and higher, 750 cc. Services 411M2X                                |
| 85135095    | <b>ASET CEGR (Phase III)</b> AC-380/410, AC- 460E, AC-460P, 900 cc. Services 418M2X                           |
| 85135088    | <b>ASET CEGR (Phase IV)</b> AC-310/330, AC330/350, AC-355/380, AC-350, 650 cc. Services 421MX                 |
| 85135083    | <b>ASET CEGR (Phase IV)</b> AC-380/410, AC-400, AC-427, 750 cc. Services 421M2X                               |
| 85135086    | <b>ASET CEGR (Phase IV)</b> AC-460E, AC-460P, 850 cc. Services 421M3X   |
| 85135510    | <b>ASET IEGR (Phase I &amp; II)</b> 300 hp only, 650 cc. Services 412MX                                       |
| 85135511    | <b>ASET IEGR (Phase I &amp; II)</b> 350 and 400 hp, 700 cc. Services 412M2X                                   |
| 85135512    | <b>ASET IEGR (Phase I &amp; II)</b> 427 and 460 hp, 750 cc. Services 412M3X                                   |
| 85135089    | <b>ASET IEGR (Phase III)</b> AMI-300, AI-300, 650 cc. Services 414MX  |
| 85135084    | <b>ASET IEGR (Phase III)</b> AMI-335, AMI-370, AI-350, AI-400, 700 cc. Services 414M2X                        |
| 85135093    | <b>ASET IEGR (Phase III)</b> AI-427, AI-460, 750 cc. Services 414M3X  |
| 85135090    | <b>ASET IEGR (Phase IV)</b> AMI-300, AI-300A, 650 cc. Services 419MX  |
| 85135082    | <b>ASET IEGR (Phase IV)</b> AMI- 335, AMI-370 w/ 5165/5174 data file, AI-350, AI-400, 700 cc. Services 419M2X |
| 85135085    | <b>ASET IEGR (Phase IV)</b> AMI-370 w/5146 data file, AI-427, AI-460, 750 cc. Services 419M3X                 |

**WARRANTY:** E-TECH™ / ASET™ Injectors – two years / 200,000 miles. All others – one year / unlimited miles.



# REMACK® SIX-PACK INJECTOR KITS



| PART NUMBER | APPLICATION cont'd  |
|-------------|---|
| 85144091    | <b>MP7 EPA07</b> with conical injector sleeves. Services 21457950, 21554442, 21457950, 21554442, 85003711, 85013147, 85003935   |
| 85143384    | <b>MP7 EPA10/OBD13</b> enhanced with coated NCV (Needle Control Valve). Services 21172430, 21307001, 21457952, 21599150, 22027807, 85013159, 85013718, 85137229, 85142314 |
| 85144514    | <b>MP7 EPA14/OBD15/OBD16</b> conical injector kit. Services 22015763, 22479123, 85020031, 85141573, 85020427  |

## MP8 INJECTORS

| PART NUMBER | APPLICATION  |
|-------------|--|
| 85144093    | <b>MP8 EPA07</b> with conical injector sleeves. Services 21451295, 21543203, 85003656, 85013152, 85003924  |
| 85143385    | <b>MP8 EPA10/OBD13</b> enhanced unit injectors with coated NCV (Needle Control Valve). Services 21092434, 21119665, 21458369, 21599153, 22027808, 85013160, 85013612, 85137080, 85142315 |
| 85144517    | <b>MP8 EPA14/OBD16</b> conical injector kit. Services 22012829, 22479124, 85020033, 85141571, 85020429   |
| 85144095    | <b>MP10 EPA07</b> with conical injector sleeves. Services 85013157, 85003931   |
| 85148517    | <b>MP10 EPA10/OBD13</b> enhanced with coated NCV (Needle Control Valve). Services 21683459, 22027810, 22717954, 85013613, 85013720, 85137230, 85142316, 85143386                         |
| 85148519    | <b>MP10 EPA14/OBD15/OBD16</b> conical injector kit. Services 22218106, 22479125, 22717952, 85020431, 85020576, 85020844  |

## COMMON RAIL FUEL INJECTOR

| PART NUMBER | APPLICATION   |
|-------------|---|
| 85150915    | <b>MP7 and MP8 EPA 17 / EPA 17 OBD 18/19</b> Engines. Services 22378579, 22378580, 22726635, 22726637, 85150348, 85150350, 85153229<br><b>Common Rail Kit Includes:</b><br>- 3 remanufactured pumping Injectors<br>- 3 remanufactured nozzles<br>- 6 sleeves<br>- 6 O-Rings<br>- 6 flange screws<br>- Adjusting screws and nuts |

**WARRANTY:** One year / unlimited miles.

**WARNING:** Use of injectors other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

## OIL PUMPS

Pressure relief plungers are replaced with 100 percent new. Cover plates are resurfaced, when necessary, to maintain flatness and surface finish.



| PART NUMBER   | APPLICATION  |
|---------------|--|
| 315GC3118FX*  | E6 Engines with 100 psi max. oil pressure gauge  |
| 315GC445GX*   | E6 Engines with 150 psi max. oil pressure gauge  |
| 315GC467MX*   | E7 PLN Engines (front or rear sump with increased volume internal gearing). Replaces 315GC460MX, 460M2X ( <b>13-tooth</b> driven gear on oil pump shaft). Requires Auxiliary shaft 453GC <b>379AM</b> or <b>435M</b> . Services new assemblies 315GC460M...Series, 315GC467M, and 315GC473M) |
| 315GC459M2X** | E7 PLN Engines (front or rear sump oil pan, Increased Ratio)( <b>12 tooth</b> driven gear on oil pump shaft) Requires Auxiliary shaft 453GC <b>381AM</b> or <b>389M</b> . (Services new assembly 315GC459M...Series)   |
| 315GC466MX    | E7 E-TECH™ and ASET™ Engines (front or rear sump with increased volume internal gearing). Replaces 315GC465BMX (services new assembly 315GC465(A)(B)M, 315GC466M and 315GC472M)  |
| 315GC3136X    | All E9 V-8 engines   |

**FEATURES:** Oil pumps are disassembled, cleaned and inspected. Pressure relief valve plungers are replaced 100 percent. Housing seats are remachined to ensure a proper seal. Pressure relief valve springs are tested and replaced when necessary. Cover plates are resurfaced, when necessary, to maintain proper flatness and surface finish. Product improvements have been incorporated into both the 315GC466MX and the 315GC467MX oil pumps. These pumps have increased volume internal gearing for improved oil pressure to the engine valve train components. All pumps are dynamically tested to ensure proper pressure and flow.

All E9 oil pumps come complete with new bushings and the drive gears installed. All pumps are dynamically tested to ensure proper pressure and flow.

**WARRANTY:** One year / unlimited miles.

\*Drive ratio is 1.3 to 1.0. The drive gear on the auxiliary drive shaft must have 17 teeth. The driven gear on the oil pump shaft has 13 teeth.

\*\*To use (increased ratio) pumps, engines must be equipped with 683GB319 (18-tooth) driving gear on the auxiliary shaft to match the 683GB284 (12-tooth) driving shaft gear on the oil pump. Production tie-in was 2/26/92, serial #2E1233 and higher.

**WARNING: Use of an oil pump other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.**

# WATER PUMPS

Complete with hub, gaskets and new bearings. A unitized-type seal and stainless steel impellers are installed for increased water flow. Completed pumps are vacuum-tested.



## WATER PUMPS WITH PULLEYS OR HUBS INSTALLED

| PART NUMBER    | APPLICATION   |
|----------------|---|
| 316GC184NX     | Mack 6-cylinder, 2-belt pulley  |
| 316GC1184BX    | Mack 6-cylinder, 3-belt pulley. No longer available, see 316GC1211FX as an alternative.                               |
| *316GC1184BP2X | Mack 6-cylinder, 3-belt cast-iron pulley. No longer available, see 316GC1211FX as an alternative.                     |
| 316GC1210AX    | E6 chassis charge air cooled (302GC43A pulley)  |
| 316GC523BX     | E6 series cooled (302GC415 pulley)  |
| 316GC528CX     | E6 4V, 1.72:1 drive ratio (302GC412 pulley)   |
| 316GC1211AX    | E6 2-belt pulley for viscous fan drive  |
| 316GC1211AP2X  | E6 2-belt pulley for viscous fan drive for MC/MR FEPTO applications   |
| **316GC548MX#  | E7 PLN engines (302GC3192M, 3200M or 4105M pulley). Services 316GC3194P6  |
| **316GC548M2X# | E7 PLN engines (302GC445M, 457M or 4107M pulley). Services 316GC3194P9  |
| **316GC548M4X# | E7 PLN engines (302GC449M, 459M or 4106M pulley). Services assemblies 316GC548AM3 and 316GC3194P8                     |
| 316GC548M5X#   | E7 PLN engines (302GC463M or 4104M pulley). Services 316GC3194P7  |
| 316GC4107MX    | E7 PLN engines (302GC460M or 4108M pulley). Services 316GC4110M assembly  |
| 316GC4108MX    | E7 PLN engines (302GC462M or 4109M pulley). Services 316GC4111M assembly  |
| **316GC549MX   | E6, CH model (with 302GC445M, 457M or 4107M pulley)   |
| **316GC549M2X  | E6, CH model (with 302GC449M, 459M or 4106M pulley)   |
| 316GC551MX     | E7 E-TECH™ Engines (302GC476M, 4100M pulley). Services 316GC551M5, M6, 316GC559M2, 565M, 565M5, 565M6 and 316GC3194P4 |
| 316GC551M2X    | E7 E-TECH™ Engines (302GC475M, 4101M pulley). Services 316GC559M, 565M2, 566M, 572M and 316GC3194P2                   |
| 316GC551M3X    | E7 E-TECH™ Engines (302GC479M, 4102M pulley). Services 316GC559M3, 565M3, 565M9, 566M3, 572M3 and 316GC3194P3         |

**WARNING: Use of a water pump other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.**

# WATER PUMPS

## WATER PUMPS WITH PULLEYS OR HUBS INSTALLED cont'd

| PART NUMBER | APPLICATION |
|-------------|-------------|
|-------------|-------------|

|             |   |
|-------------|---|
| 316GC551M4X | E7 E-TECH™ Engines (302GC487M, 4103M pulley). Services 316GC551M7, 565M4, 565M7 and 316GC3194P5 |
|-------------|---|

|            |   |
|------------|---|
| 316GC552MX | E7 E-TECH™ Engines (302GC477M, 4110M pulley). Services 316GC552M4, M7, 569M, M4, M7 and 316GC3195P2 |
|------------|---|

|             |  |
|-------------|--|
| 316GC552M2X | E7 E-TECH™ Engines (302GC478M, 4111M pulley). Services 316GC552M8, 569M2, M8, 574M and 316GC3195P3 |
|-------------|--|

|             |   |
|-------------|---|
| 316GC552M3X | E7 E-TECH™ Engines (302GC57M, 59M, 516M, 518M pulley). Services 316GC552M5, M9, 569M3 and 316GC3195P5 |
|-------------|---|

|             |  |
|-------------|--|
| 316GC565M8X | E7 ASET™ “AI” engines w/ mid-mount pump (302GC4112M pulley). Services 316GC565M8 |
|-------------|--|

|             |   |
|-------------|---|
| 316GC574M2X | E7 ASET™ “AI” engines w/ low-mount pump (302GC4113M pulley). Services 316GC574M2 (robust cover) |
|-------------|---|

## WATER PUMPS WITHOUT PULLEYS INSTALLED

| PART NUMBER | APPLICATION |
|-------------|-------------|
|-------------|-------------|

|             |   |
|-------------|---|
| 316GC1210DX | REMACK® E6 Water Pump - without pulley. (“With” pulley - part number reference: 316GC1210AX or 528CX) |
|-------------|---|

|             |   |
|-------------|---|
| 316GC1211FX | REMACK® E6 Water Pump - without pulley. (“With” pulley - part number reference: 316GC1211AX, 1211AP2X, 1184BX, 1184BP2X or 523BX) |
|-------------|---|

|             |  |
|-------------|--|
| 316GC1219AX | REMACK® E6 Water Pump - without pulley. (“With” pulley - part number reference: 316GC549M...Series, 316GC549KM...Series) |
|-------------|--|

|            |   |
|------------|---|
| 316GC284BX | REMACK® E7 or E-TECH™ Water Pump - without pulley. (“With” pulley - part number reference: 316GC548M...Series, 316GC548KM...Series, 316GC551M...Series, 316GC559M...Series, 316GC565M...Series, 316GC566M...Series, 316GC572M...Series, 316GC3194...Series) |
|------------|---|

|            |  |
|------------|--|
| 316GC285BX | REMACK® E7 or E-TECH™ Water Pump - without pulley. (“With” pulley - part number reference: 316GC4107MX...Series, 316GC4108MX...Series, 316GC552M...Series, 316GC569M...Series, 316GC3195...Series) |
|------------|--|

|            |  |
|------------|--|
| 316GC289AX | REMACK ASET™ Water Pump - without pulley. (“With” pulley part number reference: 316GC570M...Series, 316GC574M...Series) (robust cover) |
|------------|--|

**WARNING: Use of a water pump other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.**

# WATER PUMPS

## GEAR DRIVEN WATER PUMPS

| PART NUMBER | APPLICATION |
|-------------|-------------|
|-------------|-------------|

|            |                   |
|------------|-------------------|
| 316GC274DX | E9 series engines |
|------------|-------------------|

## CARTRIDGE TYPE COOLANT PUMP APPLICATION

| PART NUMBER | APPLICATION |
|-------------|-------------|
|-------------|-------------|

|          |   |
|----------|---|
| 85021352 | E7 E-TECH™ and ASET™ Engine applications with 149.6mm (5.88") pulley. Services 21437577, 25101405, 22200630, 316GC3196, 316GC3201 |
|----------|---|

|          |   |
|----------|---|
| 85021353 | E7 E-TECH™ and ASET™ Engine applications with 134mm (5.27") pulley. Services 21437575, 25101706, 22200632, 316GC3193, 316GC3200 |
|----------|---|

**FEATURES:** Water pumps come complete with hub, gaskets and 100 percent new bearings. A unitized type seal and stainless steel impellers are installed for increased water flow, and completed assemblies are vacuum tested. Studs are installed on the water pump pulley (where applicable) except 316GC184NX and E-TECH™. The 316GC548MX, M2X, M4X, M5X, 549MX, M2X, 4107MX and 4108MX pumps come with either the 8-mm or 10-mm metric studs. Nuts are included with these metric studs.

**NOTE:** On E7-427 and E7-454 engines, a potential clearance problem exists when using a Kysor® fan drive and a 302GC457M pulley with the 24MH253 fan spacer. To alleviate this condition, use of the 316GC548KM4X (302GC459M pulley) is required.

**SPECIAL NOTES:** OEM part numbers listed in IMPACT and REMACK part numbers do not necessarily coincide. Consult the above applications to determine the proper reman part number. REMACK® water pumps utilize housings with and without breathers.

**WARRANTY:** One year / unlimited miles.

### FOOTNOTES:

\* 788GB283P4 crankshaft hub 302GC3150 crankshaft pulley and six (6) 6AX1273 screws must be used with this water pump.

\*\* Those pumps marked with a double asterisk (\*\*) to the left of the part number can be ordered specially configured for Kysor® Dynair or Horton fan clutches. To order this special pump, insert a "K" before the "M" in the part number. Example: 316GC548KMX, 316GC548KM2X, etc.

# On early E7 model water pumps using a 771GB4105M water pump housing, REMACK® water pump part numbers 316GC548MX, M2X, M4X or M5X cannot be used without replacing the 771GB4105M housing with part number 771GB530AM(232M) water pump housing to avoid a potential clearance problem between the water pump shaft and the 771GB4105M housing.

**WARNING:** Use of a water pump other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

## OIL COOLER ASSEMBLIES

Remanufactured bundles and housings are assembled, fully inspected and pressure-tested. New O-rings and gaskets are included.



| PART NUMBER | HOLSET APPLICATION |
|-------------|--------------------|
|-------------|--------------------|

|              |                  |
|--------------|------------------|
| 312GB367CP2X | E6 Mack® engines |
|--------------|------------------|

|             |  |
|-------------|--|
| 312GB3100MX | All E7 PLN and E-TECH™ Engines with tube type coolers (Services 312GB3100(A)M) |
|-------------|--|

**FEATURES:** Completely remanufactured oil cooler bundle and housing assembly. Units are assembled after being fully inspected and pressure tested to ensure proper sealing. All remanufactured oil cooler assemblies include inlet and outlet O-rings, cover gaskets and water pump flange gasket. All remanufactured oil cooler assemblies are of the removable bundle type.

**WARRANTY:** One year / unlimited miles.

**WARNING:** Use of an oil cooler assembly other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

## REVERSING RELAYS

All relays are of an improved new design. The old steel crimped-type housing has been upgraded to a polished aluminum threaded housing. They are fully inspected and fully tested after assembly to ensure proper functionality.



| PART NUMBER  | APPLICATION                    |
|--------------|--------------------------------|
| 691GC218CX   | Service bulletin G723 & 47D001 |
| 691GC218CP2X | Service bulletin G723 & 47D001 |
| 691GC218CP3X | Service bulletin G723 & 47D001 |
| 691GC218CP4X | Service bulletin G723 & 47D001 |
| 691GC218CP5X | Service bulletin G723 & 47D001 |
| 691GC218CP6X | Service bulletin G723 & 47D001 |
| 691GC218CP8X | Service bulletin G723 & 47D001 |
| 691GC218CP9X | Service bulletin G723 & 47D001 |

**WARRANTY:** One year / unlimited miles.

**WARNING:** Use of a reversing relay other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

# ROCKER ARM ASSEMBLIES

Completed assemblies are tested for oil flow and operation. Slipper faces are 100 percent machined. Rocker arms are updated to include the oil hole for better lubrication.



| PART NUMBER | APPLICATION   |
|-------------|---|
| 466GC420X   | All E6 2VH Non-Dynatard® engines  |
| 466GC427AX  | All E6 2VH Dynatard®-equipped engines   |
| 466GC432CX  | All E6 4VH Non-Dynatard®-engines  |
| 466GC444CX  | All E6 4VH Dynatard®-equipped engines   |
| 466GC456AMX | All E7 PLN Non-Dynatard®-engines  |
| 466GC457AMX | All E7 PLN Dynatard®-equipped engines   |
| 466GC468MX  | All E7 PLN Jacobs® Brake-equipped engines   |
| 466GC498MX  | All E7 E-TECH™ Non-Brake engines<br>(replaces #466GC476MX)                              |
| 466GC499MX  | All E7 E-TECH™ J-TECH™ Brake-equipped<br>engines (replaces #466GC477MX)                 |
| 466GC4101MX | All ASET™ AI and AC Non-Brake engines   |
| 466GC4102MX | All ASET™ AI and AC J-TECH™ Brake-<br>equipped engines                                  |
| 466GC4107MX | All E-TECH™ and ASET™ AI and AC<br>PowerLeash™ Brake engines.<br>Services 466GC4107(A)M |

**CAUTION:** 1989 Pilot Production E7 engines were built with interim rocker stands and bolts. When replacing these 1989 E7 rocker arm assemblies with reman assemblies, you must also replace the bolts. New bolt part number is 416GC114M (M10 X 1.5 X 75—10.9 grade).

**FEATURES:** All rocker arm assemblies are updated to include the rocker arm slipper face oil lubricant hole. All rocker arms are completely disassembled, cleaned, inspected, remachined (if necessary) and reassembled. Completed assemblies are tested for oil flow and operation. The slipper face surfaces are machined 100 percent.

**NOTE:** Dynatard® and POWERLEASH™ rocker arm assemblies do not include the solenoid; however, Dynatard® rocker arm assemblies do include the latest hydraulic lash adjuster.

**WARRANTY:** One year / unlimited miles.

**WARNING:** Use of a rocker arm assembly other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.



# TACH DRIVE ASSEMBLIES

All tach drive assemblies are completely disassembled, cleaned and inspected. Those components not meeting required quality are scrapped and replaced with new. Tach drives are then reassembled and provided to you as an assembly.



| PART NUMBER | APPLICATION |
|-------------|-------------|
|-------------|-------------|

|           |                |
|-----------|----------------|
| 769GB14AX | All E6 engines |
|-----------|----------------|

**WARRANTY:** One year / unlimited miles.

**WARNING:** Use of a tach drive assembly other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

# FUEL SUPPLY PUMPS

Features new check valve and check valve spring. New mounting gaskets and copper compression washers are included. Tested for suction, proper pressure and sealing capacity.



| PART NUMBER | APPLICATION   |
|-------------|---|
| 314GC228AX  | AMBAC supply pump for APE6G and PLM model 300 pumps.  |
| 319GC110X   | AMBAC supply pump for all APE6BB model pumps.   |
| 314GC227X   | Robert Bosch single-acting pump for RS192-series pumps. With hand primer. (Reference: 935-O440008015)   |
| 314GC227P2X | Robert Bosch double-acting supply pump for P3000-series pumps and previous, excluding 192 series. With hand primer. (Reference: 935-O440008030) |
| 314GC227P3X | Robert Bosch double-acting supply pump for P6000-series pumps. (Reference: 935-9440080011)  |
| 314GC227P4X | Robert Bosch double-acting pump for P7011 pumps only. (Reference: 935-9440080017)   |
| 314GC227P5X | Robert Bosch single-acting pump for P7100, P7200 V-MAC® and mechanical pumps. (Reference: 935-O440008086)                                       |
| 85020095    | Robert Bosch double-acting pump for “inline eight” pumps. Services 935-O440008097X  |
| 85020140    | Robert Bosch single-acting supply pump for P8500 pumps only with hand primer. Services 935-O440008120X  |
| 85013282    | E-TECH™ and E-TECH™ CCRS supply pump. Services 322GC45, 322GC49(A), 21089217  |

**NOTE:** See Bulletin M50-6 for detailed application cross-reference listing.

**NOTE:** Our remanufactured supply pump and remanufactured tach drive assemblies P/N 769GB14AX will replace Viking fuel supply pumps. These pumps are no longer available, as the vendor no longer supplies components.

By purchasing both the supply pump and the tach drive assemblies, you will be able to replace the Viking pump assembly for those applications that utilize Viking pumps.

**FEATURES:** Supply pumps are completely disassembled, cleaned and inspected. Each pump includes a new check valve and check valve spring. New mounting gaskets and copper compression washers are included with each pump. New brass fuel inlet and outlet fittings are installed in all pumps. All supply pumps are dynamically tested for fuel pickup (suction) and high-pressure tested for leakoff to ensure proper pressure and sealing capacity.

**WARRANTY:** One year / unlimited miles.

**WARNING:** Use of a fuel supply pump other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

# V-MAC® ENGINE CONTROL MODULES

Each module is completely tested at room temperature and then heat soaked and retested at simulated operating temperature to ensure all system features meet O.E.M. parameters.



| PART NUMBER | APPLICATION   |
|-------------|---|
| 12MS45M4X*  | V-MAC® I Module (replaces 12MS45M, M2, M3, M4 and M5)   |
| 12MS45M5X*  | V-MAC® I Module (replaces 12MS45M, M2, M3, M4 and M5)   |
| 12MS51M7X   | V-MAC® I Module (replaces 12MS51M, M2, M3, M4, M5, M6 and M7)                                     |
| 215SB224X   | V-MAC® I to V-MAC® II conversion kit. See Service Bulletin SB230001 for application requirements. |
| 12MS59M11X  | V-MAC® II Module (replaces 12MS59M, M2, M3, M4, M5, M6, M7, M8, M9, M10 and M11)                  |
| 12MS517BMX  | V-MAC® III Module (replaces 12MS510M, M2, 514M, 517M, AM and BM)                                  |

**\*NOTE:** The 12MS45M4X and 12MS45M5X are **interchangeable** as long as they are programmed as follows:

- If replacing a 12MS45M5 with a 12MS45M4X, re-program the vehicle as an **M4**
- If replacing a 12MS45M4 with a 12MS45M5X, re-program the vehicle as an **M5**

**CAUTION:** The 12MS45M4 cannot be converted to an M5. Do not attempt to re-program a 12MS45M4X as an M5 or vice versa as this could cause damage to the module.

| PART NUMBER | NEW V-MAC® III APPLICATION  |
|-------------|---|
| 85013287    | V-MAC® III Module for <b>E-TECH™ CCRS Step 8</b> Model applications. Services 12MS523M, 25123083  |
| 85020663    | V-MAC® III Module for <b>E-TECH™ CCRS Step 9</b> Model applications. Services 12MS526M, 25100000  |
| 85020547    | V-MAC® III Module for <b>ASET™ AC</b> Model applications. Services 12MS520M, 12MS527(A) M, 12MS528M, 12MS532M, 12MS534M, 20903220, 25100050, 25101480, 25128960, 25132509 |
| 85020548    | V-MAC® III Module for <b>ASET™ AI</b> Model applications. Services 12MS530AM, 20938264, 25101097  |

**FEATURES:** Before testing, each module is cleaned and inspected for any external visual damage. The old data files are then deleted. After it passes each test, the module is ready to accept data files for your model and horsepower requirements.

**WARRANTY:** One year / unlimited miles.

**WARNING:** Use of a V-MAC® engine control module other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

# ENGINE CONTROL UNIT



| PART NUMBER | APPLICATION |
|-------------|-------------|
|-------------|-------------|

|          |   |
|----------|---|
| 85020757 | ALL MP7, MP8, MP10 EPA07 and EPA10 Engines, except OBD13. Services 20583789, 20977021, 21042371, 21107008, 21300060, 21358126, 85003744, 85013244, 85021349 |
|----------|---|

**FEATURES:** All REMACK® Engine Control Units are completely cleaned and inspected for any external visual damage. Old data files are deleted. After multiple testing parameters, the modules are remanufactured and updated to the latest engineering specifications

**WARRANTY:** One year / unlimited miles.

**WARNING:** Use of an engine control unit other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

## EGR VALVES



All REMACK® EGR valves are completely disassembled and cleaned using the latest technology. The disassembled components receive rigorous in-process inspections, where each is measured to OE/ reman specifications. One hundred percent new seals are installed. All critical components and “high wear” items are replaced with new. Remanufactured components undergo stringent quality control processes using precision machining centers to ensure performance and reliability standards are met. Complete valves are tested before shipment.

| PART NUMBER | APPLICATION   |
|-------------|---|
| 85013122    | <b>ASET®</b> Engine applications.<br>Services 691GC514D, 20945752   |
| 85153861    | <b>MP7 and MP8 EPA07, EPA10, EPA14 and EPA17</b> Engine applications. (Kit see below for component details)<br>Services 2058200, 21021175, 21095328, 21148784, 21299107, 21435628, 21735863, 22026651, 22721861, 85110394, 85111067, 85123198, 85133799, 85020220 |

REMAK® MP7/MP8 EGR Valve Kit includes:

- REMACK® EGR valve
- Shoulder screws
- V-band clamp
- Attaching clamp
- Gaskets

**WARNING:** Use of an EGR valve other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

# TURBO ACTUATORS

Use REMACK® turbo actuators on your next repair!



| PART NUMBER | APPLICATION   |
|-------------|---|
| 85140701    | MP7, EPA04 Engine applications. Services 85013957, 85109211   |
| 85013730    | MP7, MP8 EPA07 through EPA 17 and MP10 EPA 07 through EPA 14 Engine Applications. Services 21517180, 21754439 |

**FEATURES:** All REMACK® Turbo Actuators are completely disassembled and cleaned using the latest technology. The disassembled components receive rigorous in-process inspections where each is measured to Mack/Rreman latest specifications. One hundred percent new gaskets, harness and circuit boards are installed. Complete actuators are tested to the latest product standards on new production equipment before shipment.

**WARRANTY:** One year / unlimited miles.

**WARNING:** Use of a turbo actuator than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

# TURBO COMPOUND UNIT



| PART NUMBER | APPLICATION |
|-------------|-------------|
|-------------|-------------|

|          |  |
|----------|--|
| 85021677 | <b>MP8 EPA17 OBD20</b> Turbo Compound Unit<br><i>Services 23018941, 23018963, 85021676</i> |
|----------|--|

**FEATURES:** Turbo Compound Units are completely disassembled, and all component parts are thoroughly cleaned and inspected. All critical parts are checked dimensionally. Any parts that do not meet Mack specifications are scrapped and replaced with genuine new. The units are assembled and tested following the same process and procedures as used in new production. This ensures that performance and reliability standards are met.

**WARRANTY:** One year / unlimited miles.

## TURBO KITS – E7 PLN, E-TECH™

When it comes to servicing an engine, REMACK puts quality first. Don't run the risk of more downtime for your customer by not using the highest quality components. Choose the factory quality that only REMACK can provide.



| PART NUMBER    | E7 PLN APPLICATION                                    |
|----------------|---|
| 631GC5127AM14X | MH, RW, MCF, E7-350                                   |
| 631GC5127AM21X | R, RD, DM, E7-400                                     |
| 631GC5127AM22X | R, RD, DM, RB, E7-350                                 |
| 631GC5127AM23X | R, RD, DM, RB   |
| 631GC5127AM3X  | CH, 400   |
| 631GC5127AM4X  | MH, RW, 400   |
| 631GC5127AM5X  | CH, EM7-300   |
| 631GC5127AMX   | CH, E7-350  |
| 631GC5138MX    | CH, CL, RD600, RD800, 427 AND 454 hp.                 |
| 631GC5140M2X   | CL, MR, RD600 FACELIFT, CONVENTIONAL                  |
| 631GC5140M3X   | CH, RB, RD, DM, RM, MAXIDYNE                          |
| 631GC5140M4X   | CL, MR, RD600 FACELIFT, MAXIDYNE                      |
| 631GC5140M5X   | AUSTRALIA, CH, CL, RD600 FACELIFT, EN7-350V, EN7-400V |
| 631GC5140MX    | CH, RB, RD, DM, RM, CONVENTIONAL                      |
| 631GC5143M2X   | E7 MAXIDYNE   |
| 631GC5143MX    | E7 CONVENTIONAL 400 hp OR LESS                        |
| 631GC5145M4X   | 427 AND 454 hp w/ STEALTH BRAKE                       |

| PART NUMBER   | E-TECH™ APPLICATION                         |
|---------------|---|
| 631GC5173AMX  | 427 AND 460hp                               |
| 631GC5174BMX  | 275, 300, 310/350, 330/350, 350, 355/380 hp |
| 631GC5173AM8X | 460 hp                                      |
| 631GC5173AM9X | 460 hp                                      |
| 631GC5173AM4X | 350, 355/380, 380/410, 400, 427 hp          |

**FEATURES:** Turbos are completely disassembled, cleaned and inspected. They are brought back to Mack specifications. Precision balancing and functional testing ensures performance and reliability.

**WARRANTY:** One year / unlimited miles.

**WARNING:** Use of a turbo kit other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.



# TURBO KITS – ASET™ & MP

| PART NUMBER    | ASET™ AC APPLICATION   |
|----------------|--|
| 631GC5176EM10X | CH, CHN, CX, CXN, 380/410, 400, 427, 460 hp. Services 631GC5176EM3X, 631GC5176EM4X |
| 631GC5176EM11X | CH, CHN, CX, CXN, 355/380 hp. Services 631GC5176EM5X, 631GC5176EM6X                |
| 631GC5176EM12X | CH, CHN, CX, CXN, 310/330, 330/350, 350 hp. Services 631GC5176EM7X, 631GC5176EM8X  |

| PART NUMBER   | ASET™ AI APPLICATION   |
|---------------|--|
| 631GC5170BMX  | CV, RB, RD, 427 AND 460 hp   |
| 631GC5170BM8X | MR, 460 hp   |
| 631GC5172BM5X | (CV, RB, RD, DM, 460 hp Prior 10/03, w/BRV), (CV, RB, RD, 427hp., 10/03 to 12/03, w/o BRV), (CV, RB, RD, DM, 427 hp., w/ FRT. REDESIGN 1/04 and on), (AMI-370) |
| 631GC5172BM6X | MR, (460 hp. Prior 10/03, w/BRV), (427 hp. 10/03 to 12/03, w/o BRV), (427 hp. w/ FRT. REDESIGN 1/04 and on), (AMI-370)   |
| 631GC5172BM3X | CV, RB, RD, DM, 460 hp., 10/03 and later, w/o BRV  |
| 631GC5172BM4X | MR, 460 hp., 10/03 and later, w/o BRV  |
| 631GC5172BM7X | CV, RB, RD, DM, (427 hp. Prior 10/03, w/ BRV), (300A, 350, 400, AMI- 300, 335, 370 hp.   |
| 631GC5172BM8X | (MR, 427 prior 10/03, w/ BRV), MR, LE, 300A, 350, 400, AMI-300, 335, 370 hp.)  |
| 631GC5170BM2X | CV, RB, RD, 300A, 350, 400, AMI-300, 335, 370 hp.  |
| 631GC5170BM5X | MR, LE, 300A, 350, 400, AMI-300, 335, 370 hp.  |

| PART NUMBER | MP SERIES APPLICATION  |
|-------------|--|
| 85151104    | <b>MP7 EPA04</b><br>Services 20582651, 20923257, 21168597, 21592747, 22014305, 85000968, 85003212, 85013025, 85013708, 85021425, 85118915, 8511996   |
| 85151099    | <b>MP7 EPA07, Conventional, Cab-Over</b><br>Services 20941932, 20941933, 21012876, 21012877, 21080079, 21080080, 21178033, 21178034, 21424405, 21424406, 21424420, 21424421, 21592750, 21592751, 21597915, 21597916, 22014295, 22014296, 22883060 85003107, 85003349, 85003350, 85003609, 85003610, 85013028, 85013029, 85013054, 85013055, 85013711, 85115990, 85115991, 85117028, 85123288, 85123290, 85136170, 85136171, 85021420 |

**WARNING: Use of a turbo kit other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.**

# TURBO KITS – MP

| PART NUMBER | MP SERIES APPLICATION cont'd   |
|-------------|--|
| 85151093    | <p><b>MP7 EPA10, EPA14, Conventional, Cab-Over</b><br/>           Services 21187867, 21187868, 21366005, 21366006, 21468128, 21468130, 21559602, 21559603, 22001082, 22001083, 22215683, 22215684, 22880307, 85003636, 85003646, 85003847, 85013037, 85013038, 85013372, 85013373, 85020012, 85020013, 85021416, 85124600, 85124603, 85128129, 85128129, 85128129, 8512813185128131, 85136175, 85136176, 85141058, 85141059</p> <p>All conventional and cab-over trucks will be using the same REMACK® turbo. Updates are:<br/> <b>Oil Drain Line</b><br/>           22097764 – (conventional) – <b>NO CHANGE</b><br/>           22097766 – (cab-over) – <b>change to 22097764</b></p> <p><b>Turbocharger Coolant Return Line</b><br/>           20951827 – (conventional) – <b>NO CHANGE</b><br/>           20932397 – (cab-over) – <b>change to 20951827</b></p> |
| 85151723    | <p><b>MP7 EPA17, Conventional, Cab-Over</b><br/>           Services 22891442, 85021613</p>   |
| 85151101    | <p><b>MP8 EPA07, Conventional, Cab-Over</b><br/>           Services 20751426, 20761335, 21023369, 21023370, 21042278, 21042279, 21178111, 21178112, 21358882, 21358884, 21595174, 21595175, 21675488, 21675489, 22014298, 22014299, 22883062, 85000684, 85000967, 85000969, 85003138, 85003142, 85003233, 85003234, 85013030, 85013033, 85013289, 85013290, 85013598, 85013599, 85021422, 85112870, 85116628, 85116645, 85116968, 85121077, 85121101, 85123538, 85151101</p>   |
| 85151095    | <p><b>MP8 EPA10, EPA14, EPA17 Conventional, Cab-Over</b><br/>           Services 21238254, 21238391, 21364707, 21364708, 21366001, 21366002, 21468132, 21468134, 21559605, 21559606, 22001085, 22001087, 22215686, 22215687, 22880309, 85003640, 85003642, 85003849, 85003850, 85003964, 85003965, 85013572, 85013573, 85020015, 85020016, 85141061, 85141062, 85021418</p>  |
| 85152097    | <p><b>MP8 EPA 17 / OBD18 / OBD19 Fixed Geometry for Turbo Compound</b><br/>           Services 22840700</p>  |

**WARNING:** Use of a turbo kit other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

## TURBO KITS – MP

| <b>PART NUMBER</b> | <b>MP SERIES APPLICATION cont'd</b>  |
|--------------------|--|
| 85151103           | <b>MP10 EPA07</b><br>Services 21059904, 21178038, 21358892,<br>21424408, 21424410, 21595179, 21597925,<br>22014304, 85003336, 85003344, 85013035,<br>85013052, 85020042, 85116643, 85121026,<br>85121610, 85123210, 85136174 |
| 85151097           | <b>MP10 EPA10, EPA14</b><br>Services 21236205, 21364705, 21365998,<br>21436841, 21559610, 21799761, 22001091,<br>22215691, 85003288, 85003646, 85003967,<br>85013196, 85013577, 85020020, 85141066                           |

**WARNING:** Use of a turbo kit other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

# TRANSMISSIONS

## T200

Synchronized T200 transmissions use the latest synchronizer assembly and front shift covers.



| MODEL   | SPEED    |
|---|----------|
| T2050<br>T2050A                               | Five     |
| T2060<br>T2060A                               | Six      |
| T2070<br>T2070A<br>T2070B<br>T2070C<br>T2070F | Seven    |
| T2080<br>T2080B<br>T2080C                     | Eight    |
| T2090<br>T2090LR<br>T2090R                    | Nine     |
| T2100   | Ten      |
| T2110B  | Eleven   |
| T2130<br>T2130B                               | Thirteen |
| T2180<br>T2180A<br>T2180B                     | Eighteen |

**FEATURES:** Transmissions are completely disassembled, cleaned and inspected. One hundred percent new bearings, seals and gaskets are installed. All worn and spalled gears are replaced. Housings are bored, sleeved and realigned when necessary. Synchronized transmissions are built utilizing the latest synchronizer assembly and front shift covers to ensure smooth shifting and better performance. All transmissions are tested before shipment.

**NOTE:** REMACK® Transmissions do not include the externally mounted oil pump. If an oil pump is required, contact Specification Dept. for an internal oil pump transmission alternative.

**WARRANTY:** Two years / unlimited miles.

**WARNING:** Use of a transmission other than what is listed above may result in transmission failure or unsatisfactory performance, and will void transmission warranty.

# TRANSMISSIONS

## T300

Synchronized T300 transmissions use the latest synchronizer assembly and front shift covers.



| MODEL                                      | SPEED    |
|--|----------|
| T305                                       | Five     |
| T306G                                      | Six      |
| T307<br>T307M                              | Seven    |
| T308<br>T308M<br>TM308<br>TM308M           | Eight    |
| T309<br>T309L<br>T309LR<br>T309M<br>TM309M | Nine     |
| T310<br>T310M<br>T310ME<br>T310MLR         | Ten      |
| T313<br>T313L21<br>T313LR<br>T313LR21      | Thirteen |
| T318<br>T318L21<br>T318LR<br>T318LR21      | Eighteen |

**FEATURES:** Transmissions are completely disassembled, cleaned and inspected. One hundred percent new bearings, seals and gaskets are installed. All worn and spalled gears are replaced. Housings are bored, sleeved and realigned when necessary. Synchronized transmissions are built utilizing the latest synchronizer assembly and front shift covers to ensure smooth shifting and better performance. All transmissions are tested before shipment.

**WARRANTY:** Two years / unlimited miles.

**WARNING:** Use of a transmission other than what is listed above may result in transmission failure or unsatisfactory performance, and will void transmission warranty.

# T300 SYNCHRONIZER REPLACEMENT KIT

## T300 Transmission Synchro Kit

Mack has updated the T300 Transmission Synchronizer Kits to include more parts – which means a better repair and better value! The kit is an efficient, simple solution to T300 synchronizer repairs for both customers and dealers.



| PART NUMBER | APPLICATION                     |
|-------------|---------------------------------|
| 85148828    | T313 (LR)<br>T318 (LR)<br>T310M |
| 85148829    | T310                            |

**WARRANTY:** One year / unlimited miles.

**WARNING:** Use of a transmission other than what is listed above may result in transmission failure or unsatisfactory performance, and will void transmission warranty.

## mDRIVE™ TRANSMISSIONS - D-SERIES

REMACK® mDRIVE™ OBD13, EPA14 and OBD15 complete transmissions are available with computer architecture that will service all OBD13, EPA14, OBD15 and OBD16 configurations. These complete units have premium reliability, durability and performance, and are backed by a two year /unlimited mileage warranty.



mDRIVE™ Complete

| PART / MODEL | COMPLETE / HD TRANSMISSION APPLICATION   |
|--------------|--|
| 85020577     | REMACK® mDRIVE™ Model <b>TmD12AD</b> (AT2612D) Transmission applications. Services 3190628, 3190803, 3190964, 85003851, 85003853 85013437, 85020025<br>(Variants – TC-MWOR, URETARD, PSS-SING) |
| 85020578     | Model <b>TmD12AO</b> (ATO2612D) Transmission applications. Services 3190804, 3190966, 85003852, 85013439, 85020026<br>(Variants – TC-MWOR, URETARD, PSS-SING)                                  |
| 85020351     | Model <b>TmD12AD-HD</b> (AT612D-HD) Transmission applications. Services 3190931<br>(Variants – TC-MWOR, URETARD, PSS-SING)   |
| 85020352     | Model <b>TmD12AO-HD</b> (ATO2612D HD) Transmission applications. Services 3190932<br>(Variants – TC-MWOR, URETARD, PSS-SING)   |
| 85020579     | Model <b>TmD12AO-HDX</b> (ATO3112D) Transmission applications. Services 3190898, 3190933, 3190968, 85003853, 85003858, 85020353<br>(Variants – TC-MWOR, URETARD, PSS-SING)                     |

**WARRANTY:** mDRIVE™ Complete / Basic Transmissions, two years / unlimited miles. mDRIVE™ Short Transmissions, one year / unlimited miles, excluding the parts installed by dealer.

**WARNING:** Use of a transmission other than what is listed above may result in transmission failure or unsatisfactory performance, and will void transmission warranty.

# mDRIVE™ TRANSMISSIONS - D-SERIES



mDRIVE™ Basic

| PART / MODEL | BASIC STANDARD / HD TRANSMISSION APPLICATION   |
|--------------|--|
| 85013437     | Model <b>TmD12AD</b> (AT2612D) Transmission applications. Services 3190625, 3190628, 3190803, 85003851, 85003853, 85020025, 85020577, 85131807 (Variants – TC-MWOR, URETARD, PSS-SING) |
| 85013439     | Model <b>TmD12AO</b> (ATO2612D) Transmission applications. Services 3190626, 3190804, 85003852, 85020026, 85020578, 85131808 (Variants – TC-MWOR, URETARD, PSS-SING)                   |
| 85020437     | Model <b>TmD12AD-HD</b> (AT2612D <b>HD</b> ) Transmission applications. Services 3190931, 85020351 (Variants – TC-MWOR, URETARD, PSS-SING)   |
| 85020438     | Model <b>TmD12AO-HD</b> (ATO2612D <b>HD</b> ) Transmission applications. Services 3190932, 85020352 (Variants – TC-MWOR, URETARD, PSS-SING)  |
| 85020439     | Model <b>TmD12AO-HDX</b> (ATO3112D) Transmission applications. Services 3190898, 3190933, 3190968, 85013441, 85020353, 85020439, 85020579 (Variants – TC-MWOR, URETARD, PSS-SING)      |



mDRIVE™ Short

| PART / MODEL | SHORT STANDARD / HD TRANSMISSION APPLICATION  |
|--------------|---|
| 85013438     | Model <b>TmD12AD</b> (AT2612D) Transmission applications. Services 3190625, 3190628, 3190803, 85003851, 85003853, 85020025, 85020577, 85131807 (Variants – TC-MWOR, URETARD, PSS-SING)      |
| 85023330     | Model <b>TmD12AO</b> (ATO2612D) Transmission applications. Services 3190626, 3190804, 85003852, 85020026, 85020578, 85131808, 85013440 (Variants – TC-MWOR, URETARD, PSS-SING)              |
| 85023332     | Model <b>TmD12AD-HD</b> (AT2612D <b>HD</b> ) Transmission applications. Services 3190931, 85020351, 85020437, 85020444 (Variants – TC-MWOR, URETARD, PSS-SING)                              |
| 85020445     | Model <b>TmD12AO-HD</b> (ATO2612D <b>HD</b> ) Transmission applications. Services 3190932, 85020352, 85020438 (Variants – TC-MWOR, URETARD, PSS-SING)                                       |
| 85020446     | Model <b>TmD12AO-HDX</b> (ATO3112D) Transmission applications. Services 3190898, 3190933, 3190968, 85013441, 85013442, 85020353, 85020439, 85020579 (Variants – TC-MWOR, URETARD, PSS-SING) |

**WARRANTY:** mDRIVE™ Complete / Basic Transmissions, two years / unlimited miles. mDRIVE™ Short Transmissions, one year / unlimited miles, excluding the parts installed by dealer.

**WARNING:** Use of a transmission other than what is listed above may result in transmission failure or unsatisfactory performance, and will void transmission warranty.



## mDRIVE™ TRANSMISSIONS - F-SERIES

REMACK F-Series mDrive Complete, Basic and Short transmissions are completely disassembled, cleaned and rigorously inspected. All critical and “high wear” items are replaced with new. Remanufactured components are precision machined.



### mDRIVE™ Complete

| PART / MODEL | COMPLETE STANDARD TRANSMISSION APPLICATION   |
|--------------|--|
| 85020869     | Model <b>TmD12AFD</b> (AT2612F) <b>12-Speed</b> Transmission applications. Services 60150837                 |
| 85020867     | Model <b>TmD12AFO</b> (ATO2612F) <b>12-Speed</b> Transmission applications. Services 60150839                |
| 85022593     | Model <b>TmD12AFO (ATO2612F) 12 Speed “Wide Bearing”</b> Transmission applications. Services 60151003        |
| PART / MODEL | COMPLETE HD TRANSMISSION APPLICATION   |
| 85020868     | Model <b>TmD12AFD-HD</b> (AT2612F) <b>12-Speed HD</b> Transmission applications. Services 60150838, 85021593 |
| 85020866     | Model <b>TmD12AFO-HD</b> (ATO2612F) <b>12-Speed HD</b> Transmission applications. Services 60150840          |
| PART / MODEL | COMPLETE CRAWLER TRANSMISSION APPLICATION  |
| 85020864     | Model <b>TmD14AFD-HD</b> (AT2612F) <b>13- and 14-Speed</b> Transmission applications. Services 60150842      |
| 85020863     | Model <b>TmD14AFO-HD</b> (ATO2612F) <b>14-Speed</b> Transmission applications. Services 60150843             |
| 85020860     | Model <b>TmD13AFO-HD</b> (ATO2612F) <b>13-Speed</b> Transmission applications. Services 60150846             |

**WARRANTY:** mDRIVE™ **Complete / Basic** Transmissions, two years / unlimited miles. mDRIVE™ **Short** Transmissions, one year / unlimited miles, excluding the parts installed by dealer.

**WARNING:** Use of a transmission other than what is listed above may result in transmission failure or unsatisfactory performance, and will void transmission warranty.

# mDRIVE TRANSMISSIONS - F-SERIES



mDRIVE™ Basic

| PART / MODEL | BASIC STANDARD APPLICATION  |
|--------------|---|
| 85021592     | Model <b>TmD12AFD</b> (AT2612F) <b>12-Speed</b> Transmission applications. Services 60150837, 85020869        |
| 85021594     | Model <b>TmD12AFO</b> (ATO2612F) <b>12-Speed</b> Transmission applications. Services 60150839, 85020867       |
| PART / MODEL | BASIC HD APPLICATION  |
| 85021595     | Model <b>TmD12AFO-HD</b> (ATO2612F) <b>12-Speed HD</b> Transmission applications. Services 60150840, 85020866 |
| PART / MODEL | BASIC CRAWLER APPLICATION   |
| 85021815     | Model <b>TmD12AF</b> (AT2612F) <b>13- and 14-Speed</b> Transmission applications. Services 60150842, 85020864 |
| 85021816     | Model <b>TmD12AF</b> (ATO2612F) <b>14-Speed</b> Transmission applications. Services 60150843, 85020863        |
| 85021817     | Model <b>TmD12AF</b> (ATO2612F) <b>13-Speed</b> Transmissions applications. Services 60150846, 85020860       |



mDRIVE™ Short

| PART / MODEL | SHORT STANDARD APPLICATION  |
|--------------|---|
| 85021596     | Model <b>TmD12AF</b> (AT2612F) <b>12-Speed</b> Transmission applications. Services 60150837, 85020869, 85021592               |
| 85021598     | Model <b>TmD12AF</b> (ATO2612F) <b>12-Speed</b> Transmission applications. Services 60150839, 85020867, 85021594              |
| 85022595     | Model <b>TmD12AFO</b> (ATO2612F) <b>12 Speed "Wide Bearing"</b> Transmission applications. Services 60151003, 85022593        |
| PART / MODEL | SHORT HD APPLICATION  |
| 85023342     | Model <b>TmD12AF</b> (AT2612F) <b>12-Speed HD</b> Transmission applications. Services 60150838, 85020868, 85021593, 85021597  |
| 85023344     | Model <b>TmD12AF</b> (ATO2612F) <b>12-Speed HD</b> Transmission applications. Services 60150840, 85020866, 85021595, 85021599 |
| PART / MODEL | SHORT CRAWLER APPLICATION   |
| 85021818     | Model <b>TmD12AF</b> (AT2612F) <b>13- and 14-Speed</b> Transmission applications. Services 60150842, 85020864, 85021815       |
| 85021819     | Model <b>TmD12AF</b> (ATO2612F) <b>14-Speed</b> Transmission applications. Services 60150843, 85020863, 85021816              |
| 85023349     | Model <b>TmD12AF</b> (ATO2612F) <b>13-Speed</b> Transmission applications. Services 60150846, 85020860, 85021817, 85021820    |

**WARRANTY:** mDRIVE™ **Complete / Basic** Transmissions, two years / unlimited miles. mDRIVE™ **Short** Transmissions, one year / unlimited miles, excluding the parts installed by dealer.

**WARNING:** Use of a transmission other than what is listed above may result in transmission failure or unsatisfactory performance, and will void transmission warranty.

## TRANSMISSION RANGE SECTION

Always use the REMACK® Range Section Kit when replacing just the range section. This kit comes with everything needed for your install including a new transmission oil filter and O-rings.



| PART NUMBER | APPLICATION |
|-------------|-------------|
|-------------|-------------|

|          |   |
|----------|---|
| 85020425 | Model <b>TmD12AD</b> (AT2612D) and model <b>TmD12AO</b> (ATO2612D) D and F Transmission applications. |
|----------|---|

**FEATURES:** All REMACK® *mDRIVE™* Transmission Range Sections are completely disassembled and cleaned using the latest technology. The disassembled components receive rigorous in-process inspections where each is measured to OE/reman specifications. One hundred percent new bearings, seals, gaskets and speed sensor are installed. The latest engineering updated high range drum, range clutch, engaging ring and synchronizer ring are utilized. All critical components and “high wear” items are replaced with new. Remanufactured components undergo stringent quality control processes using precision machining centers to ensure performance and reliability standards are met.

**WARRANTY:** One year / unlimited miles.

**WARNING:** Use of a transmission range section other than what is listed above may result in transmission failure or unsatisfactory performance, and will void transmission warranty.

# CLUTCH CONTROL ACTUATOR



| PART NUMBER | APPLICATION |
|-------------|-------------|
|-------------|-------------|

|          |   |
|----------|---|
| 85022460 | D & F model mDrive AMT including TmD12AO-HDX with single mass flywheel. Services 23417527 |
|----------|---|

**FEATURES:** All REMACK Clutch Control Actuators are fully disassembled and cleaned using the latest technology. The disassembled components receive rigorous in-process inspections where each is measured to OE/Reman specifications. All critical components and “high wear” items are replaced with new. Final assembly is completed and tested the same as new.

**WARRANTY:** One year / unlimited miles.

# CONTROL UNITS CYLINDER HOUSINGS TOP COVERS



CONTROL UNIT (GCU)



TOP COVER (TECU)



CYLINDER HOUSING (MU)  
(No Top Cover)

| PART NUMBER | CONTROL UNIT APPLICATION  |
|-------------|---|
| 85020895    | <i>mDRIVE™</i> D-series models. Services 20829006, 21244587, 21571888, 21484417, 22117375, 22780684, 85013943 |

| PART NUMBER | CYLINDER HOUSING APPLICATION  |
|-------------|---|
| 85021341    | <i>mDRIVE™</i> D-series models. Services 20775880, 21244590, 21571890, 22106416, 22780686, 85020883 |

| PART NUMBER | TOP COVER APPLICATION   |
|-------------|---|
| 85013227    | <i>mDRIVE™</i> D-series models. Services 20829012, 21274018, 21484418 |

**FEATURES:** All remanufactured control units, cylinder housings and top covers are completely cleaned and inspected for any damage, and are remanufactured according to the latest engineering specifications.

**WARRANTY:** One year / unlimited miles.

**WARNING:** Use of a control unit, cylinder housing or top cover other than what is listed above may result in transmission failure or unsatisfactory performance, and will void transmission warranty.

# TRANSMISSION FRONT TOP COVER ASSEMBLIES

All covers are cleaned and inspected. Bores are machined as required. Shift rails are gauged for size and straightness.



| PART NUMBER | APPLICATION   |
|-------------|---|
| 110KB420X   | T2050, up to Serial No. 900435 utilizing 1st and reverse shift fork P/N 575KB3330B  |
| 110KB423AX  | T2060 with compound shift interlock (11KB51408AP3 up to Serial No. 1G0458), T306 with compound shift interlock. Services 110KB463   |
| 110KB429AX  | T2060 with compound shift interlock (11KB51408AP3, 6, 7 or 8 after Serial No. 1G0458)   |
| 110KB460X   | T2050 from Serial No. 900436 utilizing 1st and reverse shift fork part number 575KB3306B, T2060, T2070, T2070A, T2070F, T305, T306 and T307. Replaces 110KB422X   |
| 110KB461X   | T2070B, T307M with multi -speed reverse. Replaces 110KB432X, 110KB464X, T2080B with multi-speed reverse, T308M. Replaces 110KB431AX   |
| 110KB465X   | T309(L)(LR) with 8th gear inhibitor, T313L21(LR21), T318L21(LR21)   |
| 110KB466X   | T2060A, T306G, TM308. Replaces 110KB434BX   |
| 110KB467X   | TM309 with compound shift interlock 110KB468X, TM308M   |
| 110KB470X   | T2080, T2090, T2100, T2130(A)(B), T2180(A)(B), with or without FWPTO. T308, T309(L)(LR), TM309M, T310M(ME)(MLR), T313(L)(LR), T318(L)(LR). Replaces 110KB426AX and 110KB430AX. Services 110KB462 and 110KB469 |

**FEATURES:** Top covers are disassembled, cleaned and inspected. Covers out of tolerance are bored and sleeved, when required, to ensure proper size and alignment. Shift rails are gauged for size and straightness. All “range valve” type top covers are built with the latest style, nonadjustable pin height design. All covers are assembled, tested and ready for installation.

**WARRANTY:** One year / unlimited miles.

**WARNING:** Use of a top cover assembly other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

## TRANSMISSION REAR COMPOUND SHIFT COVERS

Compound shift covers (rear) are remanufactured to the same quality as our front top covers. They are disassembled completely, cleaned and inspected. All covers are ready for installation into T200 and T300 series transmissions.



| PART NUMBER  | APPLICATION   |
|--------------|---|
| 393KB39X     | T2080, T2090, T2100   |
| 393KB39P2X   | T2060, T2070, T2070F  |
| 393KB515AP3X | T2070B, T2080B, T2110B, T308M, T310M, T310MLR   |
| 393KB520X    | T2130(A)(B), T2180(A)(B), T313L(LR), T318L(LR).<br>Not applicable for (T313/T318 L21s or LR21s) |

**FEATURES:** Compound shift covers (rear) are remanufactured to the same quality as our front top covers. They are disassembled completely, cleaned and inspected. All covers are ready for installation into T200 and T300 series transmissions.

**WARRANTY:** One year / unlimited miles.

**WARNING:** Use of a compound shift cover other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

# CARRIERS

Now you have a choice between Remanufactured and Rebuilder Series™ carriers.



## REMANUFACTURED MODELS AVAILABLE

|                    |                     |                    |
|--------------------|---------------------|--------------------|
| CRD92              | CRD931A             | CRDP200            |
| CRD921             | CRDL93              | CRDP200 w/lockout  |
| CRDL92             | CRDP95              | CRDP2001           |
| CRDLP92            | CRDP95 w/lockout    | CRDP2001 w/lockout |
| CRDLP92 w/lockout  | CRD96               | CRD201             |
| CRDPC92            | CRD112              | CRD2011            |
| CRDPC92 w/lockout  | CRDPC112            | CRDP202            |
| CRDPC921           | CRDPC112 w/lockout  | CRDP202 w/lockout  |
| CRDPC921 w/lockout | CRDPC1121           | CRDP2021           |
| CRD93              | CRDPC1121 w/lockout | CRDP2021 w/lockout |
| CRD931             | CRD113              | CRD203             |
| CRD93A             | CRD1131             | CRD2031            |

## 150 SERIES MODEL – FOR STANDARD AND V-ROD APPLICATIONS

|           |  |
|-----------|--|
| CRDPC 150 | Std. Diff.<br>Std. Diff., PDLO<br>Diff. Lock<br>Diff. Lock, PDLO |
|-----------|--|

|            |                                |
|------------|--------------------------------|
| CRDPC 1501 | IWPD Diff.<br>IWPD Diff., PDLO |
|------------|--------------------------------|

|         |                          |
|---------|--------------------------|
| CRD 151 | Std. Diff.<br>Diff. Lock |
|---------|--------------------------|

|          |            |
|----------|------------|
| CRD 1511 | IWPD Diff. |
|----------|------------|

## 180 SERIES MODEL – FOR STANDARD AND V-ROD APPLICATIONS

|           |  |
|-----------|--|
| CRDPC 180 | Std. Diff.<br>Std. Diff., PDLO<br>Diff. Lock<br>Diff. Lock, PDLO |
|-----------|--|

|            |                                |
|------------|--------------------------------|
| CRDPC 1801 | IWPD Diff.<br>IWPD Diff., PDLO |
|------------|--------------------------------|

|         |                          |
|---------|--------------------------|
| CRD 181 | Std. Diff.<br>Diff. Lock |
|---------|--------------------------|

|          |            |
|----------|------------|
| CRD 1811 | IWPD Diff. |
|----------|------------|

**IMPORTANT INFORMATION:** This remanufactured carrier has the upgraded V-Stay bolt hole with **coarse threads**. You may need to upgrade the following parts based on your truck's current configuration:

- V-Stay bolt (coarse threads)
- Washer (thicker)
- Ball joint assembly (redesigned for thicker washer)

Service kits are available. Please reference MTPI 655-014, TPI 655-015 and FSB 652-005.

### NOTE:

Diff. = Differential

PDLO = Power Divider Lock Out

Std. = Standard

IWPD = Inter Wheel Power Divider

**WARRANTY:** Two years / unlimited miles for standard and V-ROD applications.



# CARRIERS

## REMACK and Rebuilder Series Offering

| "11KH" SERIES          | "P" VARIATIONS    | REMACK OFFERING | REBUILDER SERIES OFFERING |
|------------------------|-------------------|-----------------|---------------------------|
| 4000 & 5300 Series     | ALL               | YES             | N/A                       |
| 5400 Series and Higher | No "P" through P6 | YES             | YES                       |
| 5400 Series and Higher | P7 and Higher     | YES             | N/A                       |

**FEATURES:** Carriers are completely disassembled, cleaned and inspected. One hundred percent new bearings, cups and seals are installed. Carrier components, power divider and lock-out assemblies, where applicable, are completely remanufactured. All worn and spalled gears are replaced. Housings are bored and sleeved when necessary. Gear patterns and preloads are checked throughout the remanufacturing process to ensure proper specifications are maintained.

**WARRANTY:** One year / unlimited miles.

## NOW YOU HAVE A CHOICE!

### Remanufactured vs. Rebuilder Series™ Carrier

| REMANUFACTURED CARRIER  | REBUILDER SERIES™ CARRIER  |
|---|--|
| Two-year / unlimited-mile warranty* (except 95/96 models, 6 months / unlimited miles).  | One-year / unlimited mile warranty*.   |
| Most all Mack models available.   | Models available: CRDPC92, 112, CRD93, 113, CRD200.  |
| Units always disassembled, cleaned and processed with 100 percent new bearings and races installed.   | One hundred percent new bearings and races installed. However, low mileage take-out units or assemblies may be used. |
| Tight OEM or reman specifications adhered to for size and finish on all housing bores and wear surfaces. All inspection done with calibrated gauging. | Visually inspected for obvious damage - limited gauging of parts or housings.  |
| Machine all parts and housings back to OEM or service specifications.   | Visually inspect for obvious damage only.  |
| One hundred percent genuine Mack service parts.   | Parts removed at teardown are inspected for re-use.  |
| Assembled by trained factory technicians.   |  |
| Engineering backing and guidance.   |  |

\*See warranty manual

**WARNING: Use of a carrier other than what is listed above and on the previous page may result in carrier failure or unsatisfactory performance, and will void engine warranty.**

# REMAK POWER DIVIDER LOCK OUT KITS



Mack Trucks will now offer **REMAK® Power Divider Lock Out Kits** for CRDPC92, CRDPC112, CRDPC 200, CRDPC 202, CRDPC150 and CRDPC180 model carriers. The program uses the latest engineering updates to maximize performance. The benefit to you as a dealer will be to service your customers with a competitively priced genuine Mack product, while delivering the premium reliability, durability and performance you get with any REMACK product. **Power Divider Lock Out Kits** provide multiple service options. Update a carrier to PDLO or a repair option on an existing unit.

| <b>PART NUMBER</b> | <b>POWER DIVIDER LOCK OUT KIT APPLICATION</b>                         |
|--------------------|---|
| 85146537           | CRDPC 92, 921, 112 and 1121 models<br>(fine spline applications only) |
| 85146541           | CRDPC 200, 2001, 202 and 2021 models                                  |
| 85146539           | CRD 125, 150, 180, 1501 and 1801 models                               |

**FEATURES:** All REMACK® Power Divider Lock Out Kits come with all the components needed to either upgrade or replace the PDLO system, including components susceptible to high wear (inner and outer cams, wedges). These components are pre-assembled as much as possible for quick installation. Refer to picture.

- The PDLO housing sub-assembly includes fork, clutch, rail, piston, spring, cover, etc.
- The bearing retainer cover includes its seal pre-installed.
- The lockout wedge cage sub-assembly includes the wedges, and the inner and outer retaining rings.

New components include 100 percent new bearings, o-rings and gaskets.

**WARRANTY:** One year / unlimited miles.

**WARNING:** Use of a power divider lock out kit other than what is listed above may result in failure or unsatisfactory performance, and will void warranty.

# CARRIER RATIO CONVERSION FOR NEW MODEL CHASSIS

This program is intended to aid dealers with **NEW** (vehicles in stock) which require a ratio conversion to expedite the sale.

## ORDERING:

Contact Order Entry at the Middletown Reman Center at:  
1-800-5RE-MACK (573-6225).

They will need to know the following information to quote the price and turnaround time:

- 1) The type of carrier – OEM Number
- 2) The current ratio and the desired ratio
- 3) Any additional changes required to the carrier
- 4) The chassis model and serial number

The charges are as follows:

- \$ 400 Ratio Change
- \$ 880 Add a new power divider lockout
- \$ 1,280 Ratio change and new power divider lockout
- \$ 1,700 Install inner wheel power divider (does not apply to differential lock carriers)

Freight **Dealer responsible for both inbound and outbound freight**

## NOTE:

- 3.86, 4.64, 6.06 Ratios NOT available for IWPD conversions (92/93, 200, 95/96 Models)
- 3.11, 3.25, 3.40, 3.56, 4.50 Ratios NOT available of IWPD conversion (150/151 Models)

Dealers will be notified by Order Entry on the turnaround time within one (1) working day of the initial contact. To proceed with the carrier ratio conversion, contact Order Entry at the Middletown Reman Center and provide them the requisition number and freight carriers to Middletown.

Carriers should be accompanied by a parts requisition form indicating the requisition number for billing and a note reconfirming the carrier ratio desired.

To ensure best turnaround time:

- Notify your contact in Middletown before sending units to the Reman Center
- Tag the units or the container/skid in a manner so the tag is visible from the outside of container/skid.
- The tag must boldly state "RATIO CONVERSION." This will prevent units from being mistaken for cores

**SHIP TO:** Middletown Remanufacturing Center  
2800 Commerce Drive  
Middletown, Pa. 17057

Make sure to note on Mack Truck's preferred freight company's paperwork, not to hold the units, as they would for normal core return shipments. Prior to shipping, drive yokes and the v-rod suspension components must be removed.

Call your order entry contact with the Freight Bill Number to ensure uninterrupted delivery service to Middletown.

## NOTES:

- 1) All removed material becomes the property of the Middletown Reman Center
- 2) The Middletown Reman Center will use only new Mack material to make the conversion
- 3) The prices quoted in this letter are for CRD150(1), CRD151(1), CRD 180(1), and CRD181(1) models. Other models such as CRDP95(1) and CRD96(1), may incur additional charges. The Order Desk at the Middletown Reman Center will provide a quote for the service.

---

**NOTES:**

1. All removed material becomes the property of the Middletown Reman Center.
2. The Middletown Reman Center will use only new Mack material to make the conversion.
3. The prices quoted in this letter are for CRD150(1), CRD151(1), CRD 180(1), and CRD181(1) models. Other models such as CRDP95(1) and CRD96(1), may incur additional charges. The Order Desk at the Middletown Reman Center will provide a quote for the service.
4. Carriers sent to Middletown must be free of "road dirt" or a clean- up charge of \$50 per unit will be assessed. If necessary, steamclean units before removing from chassis.
5. The Middletown Reman Center will accept warranty responsibility for workmanship of the conversion and the material used. The warranty coincides with that of the new vehicle being sold.
6. The dealer is responsible both inbound and outbound freight cost.
7. Carriers will be returned on wood shipping stands.

# DEF PUMP



| PART NUMBER | DEF PUMP APPLICATION  |
|-------------|---|
| 85003864    | MP Series EPA10 through EPA17 Chassis applications. Services 21577511 |

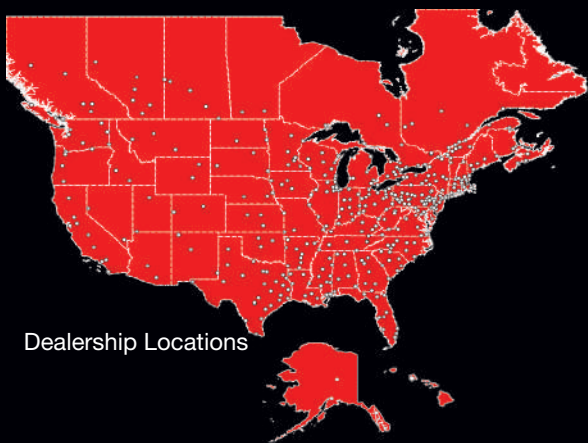
**FEATURES:** All REMACK® DEF Pumps are disassembled and cleaned using the latest technology. The disassembled components receive rigorous in-process inspections where each is measured to OE / reman specifications. All critical components and “high wear” items are replaced with new. Final assembly is completed and tested on the same production line as new.

**WARRANTY:** One year / unlimited miles.

**WARNING:** Use of a DEF pump other than what is listed above may result in engine failure or unsatisfactory performance, and will void engine warranty.

# REMACK®

---



## NEED IT NOW? **WE'VE GOT YOU COVERED.**

We've built a U.S. and Canadian network of more than 300 full-line dealers that is stronger than ever. No matter where you are, there's always a Mack dealer up ahead.

REMACK also offers one of the strongest warranties in the country - 100 percent parts and 100 percent labor, if your part is installed by an authorized Mack dealer.

---

**MACK®**

P.O. BOX 26259 • 7900 NATIONAL SERVICE ROAD  
GREENSBORO, NC 27402-6115